

# TOM SWIFT AND HIS SKY TRAIN



BY VICTOR APPLETON

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THE LAST GLIDER PLUNGED DOWN INTO LAKE CARLOPA  
WITH A MIGHTY SPLASH!

*Tom Swift and his Sky Train.*

*Frontispiece (Page 143)*

# TOM SWIFT AND HIS SKY TRAIN

OR

## Overland Through the Clouds

BY  
VICTOR APPLETON

AUTHOR OF  
“TOM SWIFT AND HIS MOTORCYCLE,”  
“TOM SWIFT AMONG THE DIAMOND MAKERS,”  
“TOM SWIFT AND HIS BIG DIRIGIBLE,”  
“THE DON STURDY SERIES,”  
ETC.

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DON STURDY IN LION LAND

GROSSET & DUNLAP, Publishers, New York

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*Tom Swift and His Sky Train*

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# TOM SWIFT AND HIS SKY TRAIN

## CHAPTER I

### A CRACK-UP

“WELL, Ned, what do you think of it?” asked Tom Swift, as he stood at the rear observation window of a powerful airplane and waved his hand at what seemed to be two closely-pursuing gliders.

“You’re moving ‘em along, that’s sure,” Ned Newton answered with a half smile as he stood beside his chum. “You got ‘em up off the ground and you’re moving ‘em through the air, regular sky train style. But——”

“I know what you’re going to say, Ned; see if I don’t!” interrupted the young inventor with a laugh, as he clapped Ned on the back. “You think I can’t unhook one of my gliders and let it coast down to the ground; is that it?”

“That’s about it; yes, Tom.”

“Well, I’ll show you, old man. Just wait a little while and watch. I want to let Mason get up a little better speed, and sense the feeling of towing two of my new gliders. Up to this time he’s taken up only one. And I also want Porton and Northrup to get the hang of the machines they’re in. Then I’ll give the word and let Northrup, in the tail glider, cut loose and go down. After that I’ll pick him up again.”

“Pick him up off the landing field on this same trip? Why you’re crazy, Tom! You’ll have a crack-up sure as shooting. Hi! Let me get down! I’m not going to be in any foolish stunt like that!”

“Don’t get excited, Ned!” said Tom with a chuckle. “I’m not going to try the pick-up yet awhile. That’s in the future—something I’ve got to work out. But you’ll see that it will be a simple matter to uncouple the tail glider, or, for that matter, the one directly back of us, and let it float down with the pilot in it. Yes, and the same thing would happen if there were passengers aboard. But I didn’t think it wise to experiment with any passengers just yet.”

"Maybe it will be a good thing you didn't, Tom. It's bad enough for you and me and the men to be risking our foolish necks," and Ned glanced, not a little apprehensively, at the two gliders which, like the coaches of a railroad train, were being pulled along beneath the sky in tow of the big airplane which served as an engine.

"Nothing will happen, Ned! You know how many times you've been up in this plane with me, and there's no better pilot going than Mason."

"I know that. It was the gliders I was thinking of. After all, Tom, you know this new sky train of yours is only an experiment."

"Yes, but it's an experiment that has passed the first stages and it's going to work!" cried Tom with enthusiasm. "I don't say I am going to pick up gliders in mid flight just yet, but that will come in time."

"I'm willing to wait, Tom," spoke Ned with a doubtful shrug of his shoulders. "At any rate I suppose we're safe enough for a little while, and that nothing will happen. Eh?"

"Sure," answered Tom Swift, but a little absently, for he was peering anxiously out of the rear observation window in the cabin of the big plane at the following gliders.

"Then there's something I want to talk to you about, Tom."

"Fire ahead, old man. Nobody is likely to interrupt us here." This was true enough, for the two young men had the big airplane cabin to themselves. Save for Mason, the pilot in the cockpit forward, they were the only ones aboard, though the craft was designed to carry twenty passengers, and was one of Tom Swift's most successful commercial type of planes. In each of the two gliders, being towed, was a single pilot, but they were too far back to have any chance to interrupt the conference between the young inventor and his business manager and boyhood chum.

"First of all, Tom, I want to say that I think these gliders will never be anything but a plaything."

"That's where you're wrong, Ned. They may never be as popular as airplanes, nor be as big or carry as many passengers. But they are what might be called a tool in the aviation kindergarten—they serve a useful purpose in teaching beginners in the air game."

"Well, yes, maybe that."

"But I hope you didn't come up on this flight just to tell me that, Ned," and Tom's mind seemed to be on something else as he reached for the telephone instrument connected to both the following gliders.

"No, there's something more important than that, Tom. It's about money and—"

"Excuse me just a moment, Ned," the inventor interrupted. "Hello there, Northrup!" he called into the telephone. "You're getting out of line a bit! Keep

her straight or you'll strain the coupling!"

There was a moment of silence, during which Ned heard only the throb and hum of the powerful motors of the pulling plane. Tom was listening to what his mechanic in the rear glider was saying over the wire. And a testy tone was in Tom's voice as he said:

"That's all right—but you've got to do it, I tell you! Keep directly behind Porton's glider or there'll be trouble when I give you the signal to cut loose! We don't want a crack-up on this first flight."

"I should say not!" exclaimed Ned fervently as his friend hung the instrument back on the cabin wall hook. "If you do, I'm afraid the chances will be all up."

"Chances all up! What do you mean?"

"I mean about getting that loan from Lester Willam, the new bank president."

"Didn't you negotiate that loan, Ned?" and Tom's voice was quite anxious. For the first time since the trial flight had started, he turned his gaze away from the tilting, following gliders and looked intently at his business manager. "Didn't you get the money?"

"No, I didn't!" Ned's answer showed how provoked and put out he was. "This Willam is one of the hardest-headed men Missouri ever turned out. He's got to be shown—says he wants to have a talk with you and go over matters."

"Well, maybe that's reasonable," mildly said Tom. "After all it's money which he is, in a way, responsible for, that we want him to lend us, so I can go on perfecting my sky train. I'll have a talk with him after I show you how my new system works."

"Well, I hope it does work, Tom. It would be disastrous to have an accident now in more ways than one."

"What do you mean?"

"Well, I mean if Willam heard of it, and he'd be sure to, it might shake his confidence in you and our company."

"There won't be any accident, Ned."

"I surely hope not. But, all the same, I didn't like the attitude this Willam took, when I went to him about the loan. It isn't like when Mr. Placent was at the head of the bank. Then there never was any question."

"Well, don't form a hasty judgment," urged Tom. "Some of these fellows that are very brusque make better bank heads than those who grant every loan that's asked. But I sure do need money!" said Tom fervently.

"That's another thing I can't understand," Ned went on. "With all the millions you have made for the Swift Construction Company, Tom, why do you need cash just now?"

"Well, yes, I have made money," admitted Tom, again reaching for the

telephone. Into it he called sharply: "You're getting out of line again, Northrup! Can't you keep her straight? Yes, do! It's very necessary. I'll have Mason open his throttle a little. It may be we aren't going fast enough."

"We're going plenty fast for me!" murmured Ned. But Tom paid no heed to this little protest, as he got into communication with the pilot of the powerful pulling plane and asked for more speed. An instant later the louder throb and roar of the motors, as well as the sensations of the two passengers in the cabin was evidence that the sky train was soaring around above Shopton at greater velocity.

"What's that you were saying, Ned?" asked Tom, hanging up the telephone instrument.

"I said I don't see what you do with all your money, Tom, even if you are married now," and Ned smiled.

"Certainly Mary doesn't use much of it," Tom said. "She's as fine a little managing wife as a crazy inventor like myself could have. But the cash goes in experiments like this one, Ned. I have spent many hundreds of thousands of dollars getting my sky train in shape for a trial, and it will be a long time, even after it proves successful, before any cash from it will be coming in. It has been that way with a lot of my jiggers—the giant cannon, the war tank, the talking pictures, the electric locomotive and other machines. I spent millions on them and some millions came in. Then I spent more on new dinguses and so it goes. And I need a tidy sum now, Ned, to perfect this sky train, so I can pick up gliders in the air as well as release them when the towing airplane is in full flight. But I'll do it! So if old what's-his-name wants to know where our money goes, and where that which he is going to lend us will go, tell him in useful experiments. A lot of them fail, that's what runs the cost up."

"I'll tell him, but I don't know that I can convince him, Tom. You had better see him yourself."

"I will—after this demonstration."

"Then let's hope it will be a success," Ned murmured anxiously. "After Willam turned me down, or, rather, stood me off, I said you'd be out to see him."

"Out to see him?" exclaimed Tom questioningly. "Why, isn't he going to be at the bank?"

"No, he's going to the Country Club over the week-end. He's there now, I guess, for he was leaving this morning when I was in the bank, and I came to the flying field directly from there and you got me into this machine," and Ned looked about the airplane cabin.

"Don't worry! You'll get down and out all right!" Tom said with a chuckle. "But I don't just like Willam's manner."

"Neither do I. If he won't let us have the money, Tom, what will you do?"

For a moment the young inventor did not answer. He was gazing anxiously at the two towed gliders. His hand went out for the telephone again, as Ned noticed the rear machine swerve. But as it came into line again Tom did not carry out his evident intention of giving more instructions to Northrup. The inventor turned to Ned and remarked:

"I think I can get our queer friend, Mr. Damon, to introduce me at his bank in Waterfield. They may let me have the cash I need to go on with my sky train."

"I hope so," came from Ned. "After Mr. Damon gets through blessing his rubber boots or his fountain pen, he may be able to get his bank to help us out. But how much longer are you going to circle the field, Tom?"

"Not much longer now. I think I can give the word for Northrup to cut loose." Tom looked from a side window, down to the ground, as if to calculate the speed, then he glanced at some indicator instruments and was reaching for the telephone when Ned gave a sudden shout:

"Look, Tom! He's cut loose already!"

"He has?" cried Tom. "Why I didn't give him word!"

The young inventor swung around and gazed, with Ned, out of the rear window of the big airplane. There was only one glider in tow of it now. The second one was detached and was dropping rapidly toward the earth.

"Something has gone wrong!" cried Tom Swift. "Northrup shouldn't have cut loose without orders!"

"He seems to be in trouble!" exclaimed Ned, for the glider was dropping rapidly to earth in a series of nerve-racking dives.

"He sure is in trouble!" Tom fairly shouted as he caught hold of the telephone instrument. "There's going to be a bad crack-up!"

## CHAPTER II

### A WONDERFUL INVENTION

TOM SWIFT's first order was to Porton, the pilot in the glider directly attached to the big airplane.

"Cut loose and go down!" snapped Tom into the instrument. "Northrup has cracked!" Then, switching the telephone to the cockpit of the towing plane, the young inventor called to Mason: "Stand ready to make a landing when I give the word! Porton is going to cut loose! Northrup has made a nose dive and is going to crack! Land on the far side of the field so you won't taxi into either glider! Get ready now! Porton has cut off!"

Having given his orders, Tom dropped the instrument and looked out of a side window, down to the ground.

"There he goes!" he exclaimed. "Oh, what a crack!"

"Killed?" gasped Ned.

"I'm afraid so! Get the first aid kit out!" and Tom pointed to a wall cabinet where it was kept.

As Ned turned away from the window, he had a fleeting glimpse of the glider, out of control, with Northrup in it, strike the earth. A moment later the other glider, carefully piloted by Porton, went down in a perfect landing.

Once more Tom Swift called to the plane pilot:

"Shoot her down, Mason!"

The big craft began to lose speed and approach the earth while Ned, with the first aid kit ready, and Tom Swift waited anxiously to ascertain the extent of damage and to learn what had happened to the luckless Northrup.

"This is bad, Ned! Bad!" murmured Tom. "Poor fellow!"

"Yes, Tom, it looks bad!"

And while they are getting ready to make a landing it will be an opportune moment to tell new readers something about Tom Swift and Ned Newton, as related in previous volumes of this series.

The first book is named "Tom Swift and His Motor Cycle." Tom, then a younger man, in fact a mere lad, was the son of Barton Swift, a well-known inventor who lived in Shopton, a small interior city on the shores of Lake Carlopa. Mrs. Swift had been dead for some time and Tom and his father were looked after by Mrs. Baggert as housekeeper. Another member of the family

was Eradicate, an aged colored servant. Ned Newton had been Tom's boyhood friend and was now his business manager. For under the guidance of Mr. Swift there had sprung up in Shopton a big business in making many machines. Tom's first venture into the inventive field was after a Mr. Wakefield Damon, of the neighboring city of Waterfield, riding his new motor cycle, tried (unsuccessfully and without real intention) to climb a tree with it. Disgusted with his purchase, Mr. Damon, exclaiming: "Bless my insurance policy, I'm done with motor cycles," sold it to Tom.

Tom repaired it, improved it and then began his inventing career. He next appeared in a speedy motor boat and from that it was but a step to an airship. As the years went on, Mr. Swift's health failed and Tom, with Ned to help him as business manager, took charge of the Swift Construction Company, with faithful Garrett Jackson as head of the different shops.

Tom's various inventions and exploits are set forth in the different books prior to this one. The volume immediately preceding this one is called "Tom Swift and His Big Dirigible," and in it is told how Tom managed with his *Silver Cloud* to make a most thrilling rescue of several guests marooned at a summer resort hotel by a great forest fire. Since then Tom had been busy on as many new ideas as his wife, who was formerly Mary Nestor, would let him busy himself over. Tom had long been in love with Mary, and his attentions had been encouraged by Mr. and Mrs. Nestor ever since Tom succeeded in saving them by means of his celebrated wireless message. Tom's marriage was such a happy one that he often urged Ned to become the husband of Helen Morton, and Ned had said, more than once, that he "would think about it." At the time of this story he was still thinking.

The first part of this wonderful inventive experiment was under way when the accident happened. The rear of two gliders had, in some manner, become detached from its fellow, which, in turn, was coupled to the powerful airplane, and now lay a shapeless wreck on the ground.

"Come on, Ned!" called Tom as Mason skillfully brought the big plane to a perfect, three-point landing. "Maybe he isn't killed, though it looks like a bad crack!"

"It sure does!" Ned echoed as, with the first aid kit in his hands, he followed Tom who was racing across the landing field toward the crumpled glider. Luckily there was no fire, as gliders carry no motor, with gasoline which can explode.

As Tom and Ned rushed toward the scene of the accident, several men from the Swift shops, which lined one side of the landing field, were also seen hurrying to aid. Among them was one big, powerful fellow who easily outdistanced the others, reaching the wreck first.

"There goes Koku!" murmured Ned.

"Yes, my giant is right on the job!" Tom echoed.

Koku was, in truth, a veritable giant, nearly eight feet tall now, and broad in proportion. Before Tom and Ned, or any of the others could reach the scene of the disaster Koku, who had been brought back from a strange jungle on one of Tom's exploring airship trips, was beside the wrecked glider, tearing it apart with his powerful hands.

"I get um out!" he rumbled in his deep voice, and, as he spoke, he tenderly lifted out in his big arms the inert form of Northrup. No one but a giant like Koku could have done it so quickly and skillfully.

"Is he dead?" cried Tom, as he reached the side of his big man and looked anxiously at his pilot.

"No—guess um not deaded," Koku answered. His English left much to be desired, but his strength and kind heart nothing. "See, um make um eyes open."

As Koku spoke, the pilot, who had fallen to earth with the suddenly released glider, slowly opened his eyes and put his hand to his head which was bleeding a little.

"How are you, old man? Mighty sorry this happened!" exclaimed Tom. "Quick, Ned! Some bandages! And give him a little stimulant! Are you badly hurt, Northrup?"

The pilot lay still a moment in the great arms of Koku and then struggled to an upright position, much to the relief of Tom, Ned and the others who had hurried up. Among them were Mason the mechanic of the plane and Porton from the second glider which had landed safely.

"I—I guess I'm pretty near all right, Mr. Swift," Northrup slowly answered. "A bit shaken up but—nothing broken," he went on as he got to his feet, took a few steps and flexed his arms. As he did so, a spasm of pain crossed his face and Tom leaped forward to catch him, thinking he was about to fall.

"It's just a sprain, that's all," Northrup said with half a smile. "I thought I was going to make it all right," he went on, "but I couldn't straighten her out in time and she hit right on her nose."

"Yes, I saw it," said Tom. "You're lucky not to be like that," and he pointed to the cracked-up glider. "I'm glad I put the control seat as far back as I did."

"That's about all that saved me," Northrup admitted.

"But what happened?" Tom asked when he saw his man was not seriously hurt. "I didn't tell you to uncouple the glider. I was just going to after Mason speeded up, but I hadn't given the word."

"I know you hadn't, Mr. Swift. I was waiting for it when, all of a sudden, without doing a thing, I found myself loose and down I shot before I could get

the controls where I wanted them.”

“You mean you didn’t cut loose?” asked Tom, a bit sharply.

“No, sir, I didn’t, Mr. Swift. She cut loose herself! I think there is something wrong with the coupling mechanism!”

“Is that so! Well, that’s bad and it’s something I’ll have to look into,” Tom said. “Not much use looking at the coupling of that glider, though,” he went on, grimly, as he pointed to the wreck. “But how about your coupling, Porton?”

“Mine worked all right,” answered the second pilot. “I cut her loose when I got word from you and she landed perfect—like a feather.”

“I can’t understand it,” murmured Tom, going over to the wreck of the cracked glider, in the hope of being able to pick some pieces of the coupling device out of the debris. He shook his head in puzzled fashion. “Well,” he went on, “we’ll have to go into this thoroughly later. Mr. Jackson,” he said to the shop manager who had come out with some of his workers, “have this stuff taken to my laboratory, please. I’ll go over it there,” and he pointed to what was left of the glider. “You can put the plane in the hangar, Mason,” he said to the chief pilot. “And, Porton!”

“Yes, Mr. Swift.”

“Detach the coupling mechanism from your glider and bring it to my office. I may have to make some changes in it. We certainly can’t afford to drop a passenger glider off our sky train and have this happen to it,” he added with a rueful laugh as he turned aside from the twisted mass of wings, struts and cockpit that had, a little while ago, been a perfect glider.

“I should say not!” murmured Ned. “I’m afraid this is going to have a bad effect on business,” he went on, as he and Tom started for the office of the plant.

“How do you mean?”

“Well, when Lester Willam hears about this accident, he isn’t going to have enough confidence in your new invention to lend you any money. And he will be sure to hear of it.”

“Yes,” agreed the young inventor as Ned finished, “I guess this bad news will spread. And I’m not going to try and stop it. Often experiments fail. It is through failure that we learn. This was only an experiment—and a partial failure. I’m glad Northrup wasn’t much hurt, though.”

“So am I! What’s that?” Ned exclaimed as a sound of high voices came from the group of shopmen they had just left. Koku’s deep tones could be heard saying:

“Yes, I carry you! Master Tom he say I do dat!”

“You’re not going to carry me like a baby, you big giant!” objected Northrup with a laugh. “I’m all right. I can walk,” which he proceeded to

prove, though he limped slightly.

"Ef I done had mah old mule, Boomerang, I'd ride yo' all in on him back," proclaimed Eradicate the old colored man, shuffling along back of Koku and the pilot of the glider. "An' ef yo' all wait a bit, I'll git mah wheelbarrer!"

"No, thanks!" said Northrup.

"Rad go 'way!" ordered Koku.

"I ain't gwine t' do it! Massa Tom want me t' help much as he does yo' all —yo' great big stiff!" and Rad looked angrily at the giant.

"They're at it again!" spoke Ned with a chuckle. Tom smiled and called:

"Here, Rad! I need you to help me in the office!"

"Ho! Whut I tell yo' all!" exclaimed the colored man triumphantly. "Go on, big stiff! Yo' all kin carry him! Massa Tom want me!"

Koku made a playful punch in the direction of Eradicate. If it had reached him the colored man would surely have toppled over, but, in spite of his age, he nimbly shuffled out of the way. A little later he was doing some simple tasks in the office, delighted to be of service to his young master. Meanwhile Koku had, in spite of Northrup's objections, carried him to the shop infirmary where a doctor and nurse looked the pilot over. Later they reported to Tom that his employee was not seriously hurt.

"Mighty lucky," commented Ned.

"Yes, but mighty unlucky about that new coupling jigger of mine," said Tom. "I don't see what caused it to loosen before it was released. There's something wrong I've got to find out about."

"Are you going to see Willam?" asked Ned. "It might be a good time to tackle him before he has a chance to hear about this accident."

"Good idea, Ned. I'll go see him out at the Country Club right away. I think when he hears about my new invention, he'll come across."

"It's a wonderful invention all right," murmured Ned as Tom left to get his auto to make the run out to the Lake Carlopa Country Club. "But can he make that shrewd Willam believe it? And yet he must, if we are to get the loan of that money to carry on! I hope Tom Swift has good luck!"

## CHAPTER III

### TURNED DOWN

MEANWHILE Tom Swift, having telephoned to his private garage to have his speedy car ready for a dash to the Country Club, looked over some papers in his office and was about to leave, when he was stopped by a rather sullen faced young fellow.

"Well, what is it, Daniel?" asked Tom. Davis Daniel was the name of a new clerical assistant whom Tom had engaged when the office duties became extra heavy, because of the work on the new sky train.

"About this accident, Mr. Swift," Daniel went on. "I hope you didn't get hurt."

"Not at all," Tom said, not any too well pleased to have the mishap spoken of by this new clerk. "You heard about it very quickly."

"Oh, yes, sir. I was out on the field, waiting for you to come down so I could find out what you wanted done about that dirigible matter. You haven't let the World Exposition people know whether they can have her for an exhibit. What did you decide?"

"That's so, it did slip my mind," Tom admitted, recalling that the management of the big air carnival, to be held soon on the Pacific coast, had asked for the *Silver Cloud*, the immense, Swift dirigible for exhibition purposes. This was the craft in which Tom made rescues from the hotel menaced by the great forest fire, as told in the preceding book.

The *Silver Cloud* had been sold to the firm of Jardine Brothers, but Tom planned to borrow back, for a time, his unique air traveler that it might be shown in connection with his sky train.

"I'll take that up with you as soon as I get back, Daniel," went on the young inventor. "I have to go now to the Country Club. No, the accident to my sky train didn't amount to much—Northrup was only bruised. The men are bringing in some of the damaged parts, the coupler and so on. See that they are carefully put away in my private laboratory and that no one disturbs them, Daniel."

"Yes, Mr. Swift, I'll do that," Daniel said, as Tom saw his big car swing into the drive in front of his office. "So you are going to the Country Club, are you?" Daniel murmured, as Tom left the place "Well, I can guess what for."

And laying aside the letter from the World Exposition secretary, Daniel took up a telephone directory, and began to thumb its pages.

Tom Swift was a member of the Country Club but, of late, he had not been out to sit in the pleasant house or follow after an elusive white ball, over the well-laid-out golf links. Tom's wife went, however, quite frequently out to the place and Tom had ascertained, by a telephone call to his home, that Mary was out there now. Tom had promised to meet her there and drive her home, as she had gone out to play golf with Helen Morton and some other friends.

"Yes, this certainly is a beautiful place," Tom murmured, as he drove along the winding road that skirted Lake Carlopa and then wound up a wooded eminence to the club grounds. "I wish I had more time to spend out here. But you can't play golf and invent sky trains," he added with a little regretful laugh.

He parked his car, learned from a servant that Mary was still out on the links with her friends, and that Mr. Willam was expected in shortly from his foursome.

"Just tell Mr. Willam I'm outside here on the verandah, Edgar," Tom said to the boy, "and ask him to let me know when I can talk to him."

"Yes, I'll do that, Mr. Swift."

Tom was busy with many thoughts, chiefly about what needed to be done to the coupler device of his sky train to make it trouble proof, when he saw a shadow move near his chair and a gruff voice said:

"You are looking for me, Tom Swift?"

"Oh, yes, Mr. Willam!" exclaimed the young inventor, quickly arising from his chair to shake hands with a heavy-set, heavy-jowled man, with a coarse, unresponsive face, and a pair of cool, appraising gray eyes. "If you have a few moments to spare, I'd like to talk business with you. Hope I didn't interrupt your game."

"Huh! It wasn't much of a game!" grunted Lester Willam, as he took out a thick, black cigar and viciously bit off the end, calling as he did so: "Here, boy! Bring me some matches and don't be all day about it! Game! I never played worse in my life! Bah!"

For the sake of what he was about to propose, Tom Swift wished Mr. Willam had done better on the links, but there was no help for it. Tom must have money.

"Perhaps you can guess what I have come to see you about, Mr. Willam," Tom went on, when the bank president's cigar was drawing well. "My financial man, Ned Newton——"

"Oh, yes, Newton was in to see me," said the gruff voice, with little encouragement in it. "About a loan—I said I'd have to talk to you, Mr. Swift."

"Yes. Well, I'm glad to talk over the matter with you. In brief, I need a

considerable sum to perfect my new sky train.”

“Huh! Sky train! Sounds foolish to me, but go on!

“Well, it isn’t quite as foolish as it may sound,” Tom said, trying to keep his temper. “As you probably have heard, there is to be held, shortly, on the Pacific coast one of the biggest air meets in history. I have sent some exhibits out there and I am planning to send another, my big dirigible, *Silver Cloud*. All those are perfected inventions—they all work—and so does my experimental sky train. But I need a large sum in cash, right away, to perfect it and build an actual train that I can send out to the coast and back and demonstrate it at the World Exposition. Perhaps Mr. Newton explained that we had used up much of our ready cash, which is why we need more. We can give you good security—a mortgage on the sky train patents, in fact.”

“Hum! Are they any good?”

“They are and will be more valuable,” Tom said.

“Well, explain it to me—just what is a sky train, anyhow?” Mr. Willam bit viciously on his black cigar and emitted a cloud of white smoke.

“In brief, my sky train will consist of a powerful airplane, of a cabin type, capable of carrying say a score of passengers,” Tom said. “If this was all there was to it I wouldn’t be troubling you. But while planes carrying passengers from coast to coast are not uncommon, my plan of attaching to the towing plane a number of smaller planes, without motors, which are called gliders, is new. And my plan of having the towing plane pick up gliders, filled with passengers, at various flying fields between here and the coast, and taking them along, dropping them off as a railroad train drops off coaches at local points, is also new.”

“Do you mean to say,” burst out the bank president, “that you propose to fly a train of gliders through the air, starting here in the east, pick up other gliders at intermediate points, dropping off some, picking up others and like that?”

“That’s exactly what I propose to do,” said Tom, smiling.

“It can’t be done!”

“Excuse me, but it has been done,” Tom said. “I have just come from a test of my new invention. You realize, Mr. Willam, that it is comparatively easy for a towing plane to start from the ground, towing motorless gliders—any reasonable number of them. But by my plan, the last glider in the train can be cut loose at any determined point, and will go down to the ground say at Chicago, Denver, or any place between here and the Pacific coast.”

“You mean you just cut loose those gliders filled with passengers and let them drop?” asked Mr. Willam. “That’s foolishness! Dangerous! They’ll all be killed.”

“No,” went on Tom. “The gliders will land as gently as any regular

airplane. Each glider will be in charge of a competent pilot who will ease it down to earth. But that is only half my plan. I want to make my coast to coast sky train a sort of express, without stops. And I plan to have it pick up loaded gliders at certain points and pull them out to the coast."

"You mean you're going to dip down in that big airplane of yours, with a string of gliders for a tail, like a kite, and hook on to some other glider, or gliders, waiting on the ground? That can't be done! There would be a grand smash! You needn't think I'll lend you money on such a wild scheme!"

"You don't quite understand," Tom went on, patiently. "I don't propose to pick up gliders from the *ground* with my sky train. The glider, or gliders, at intermediate points, filled with passengers, will be hauled *into the air* by an auxiliary motored plane at each landing field, and will be coupled to the rear of my sky train while it is in full flight."

Mr. Willam thought this over for a few seconds, meanwhile rolling his cigar from one side of his mouth to the other.

"Let me see if I get you," he said to Tom. "You propose to start a sky train, consisting, first, of a big motored airplane, say from New York, and head for San Francisco. Towed by the big plane will be several gliders, carrying passengers. One glider will have in it passengers who, we'll say, want to land at Chicago. When your sky train gets there, you'll drop off the last glider. Is that it?"

"I won't exactly *drop* it off," Tom said with a smile. "I will simply uncouple it, as a brakeman would uncouple a railroad coach from the rear of a train. The glider, guided by a pilot, will make the landing safely. At the same time an auxiliary motored plane on the Chicago field will soar aloft, towing a glider of passengers who want to go to San Francisco. This glider will be coupled to the rear of my sky train in place of the one let off over Chicago, and the plane that brought it up will circle back to the field."

"Well, I can understand the principle of the thing," grudgingly admitted the bank president. "It sounds all right in theory and I'll admit that we're getting to be quite an air-minded country. But will your plan work and will it pay?"

"It will work," said Tom, with more confidence than he felt since the accident. "And I'm sure it will pay. There is a growing demand for rapid transportation between here and the Pacific coast."

"Yes, I admit that. But a sky train! All nonsense, I should say!"

"The Acton Aviation Works in Pleasantville don't think it's nonsense," said Tom quickly.

"What do you know of the Acton works?" demanded Mr. Willam suddenly and sharply, as he blew out a big cloud of smoke.

"Not much," Tom had to admit. "However I understand they are working on something like my sky train, but on a different principle."

"Bosh!" exploded the bank president. "It will never amount to anything. And I don't believe your scheme will, either. But I know you have been successful in many of your inventions, Tom Swift. I might be willing to consider making a loan, but I should have to ask better security than just a mortgage on your sky train and the patents covering it. That's too visionary for a bank loan. If you could arrange to give me a mortgage covering your plant, or part of it, and put up as security say your big dirigible—I understand that really works—why I might consider—yes, what is it?" he interrupted himself to snap at a boy in the club livery who came out to stand deferentially by the big man's chair. "What is it?"

"Telephone, Mr. Willam."

"Oh, all right! Why didn't you say so at first? I'll be back in a moment," said the bank president to Tom, who was rather dazed by the large security demands. "I'm not at all in favor of this—but wait until I see who wants me."

He went inside the clubhouse, while Tom waved to Mary and her friends, who, just then, appeared coming in from the golf field. Before Mary could come up on the verandah to greet Tom he saw Mr. Willam hurrying back. There was now a different look on the bank president's face.

"It's all off! Nothing doing!" he exclaimed. "I'll not loan you a dollar of the bank's money on your sky train, Tom Swift!" Then, tossing aside the smouldering cigar, Lester Willam again went into the clubhouse.

"Well," murmured Tom, with a grim smile, "that's that! Turned down! I wonder if his telephone message could have had anything to do with it? I thought I had the idea of a sky train sold to him before that. I wonder what's wrong?"

## CHAPTER IV

### SUSPICIONS

"HELLO, Tom!" greeted his pretty wife Mary, as she waved to him, approaching up the slope that led to the clubhouse.

"Oh, hello!" he replied. "How was your game?" he went on, trying to shake off the unpleasant feeling engendered by Willam's curt refusal.

"Very good," Mary answered. "But what are you doing out here? When I asked you to come golfing this morning you said you couldn't—that you were too busy—and now I find you here after the day is done and I can't play any more. What's the idea?"

"I had to come out here in a hurry on business, Mary," Tom answered as she came up on the verandah. "I had to see a man, so I ran out. Besides I said I'd call for you. I'm sorry I couldn't play golf with you, but—you know how it is."

"That sky train of yours, I suppose?" she asked with a little laugh. "How is it working? I remember you said you were going to make a trial today."

"Yes, we did." Tom did not feel much like talking about it.

"Well, go on," his wife teased. "Do I have to drag every word out of you? Tell me all about it or I shan't tell you anything about my game today and I made some wonderful shots—one birdie!"

"No! Did you?" exclaimed Tom in delight. "That's fine! I'll have to take you on. Have you your car or do you want to drive back with me?" he went on, as Mary's girl friends, after greeting Tom, went into the clubhouse to get some refreshments, leaving the two alone on the verandah.

"I came with Helen Morton, but I'll drive back with you. Don't think you are going to get out of telling me about your new invention. I want to hear all about it. Oh, Tom!" she went on in a more serious tone as she noted the gravity of his face, "did anything happen? Was anybody killed—an accident?"

"No one was killed—not even much hurt," Tom replied in a low voice. "And nothing much happened—no more than always happens when one is experimenting with a new device. I'll tell you about it on the way home. Are you ready to go along now?"

"Yes, as soon as I tell the girls I'm going with you instead of with them. Here, take my clubs to the locker, will you, and I'll be with you in a moment."

"All right," Tom answered, and, accepting the bag of clubs he walked around the corner of the main building to the caddy house where the members kept their clubs. It was in this short journey that Tom heard, coming from an open window of the club tea room, some talk which made him suspicious. The way to the caddy house led down a little slope beneath a tea room casement, and some one at a table near the window was talking loudly enough to be heard outside.

"Yes," said a booming voice which Tom had no difficulty in recognizing as that of Lester Willam, "that was Tom Swift the inventor I was just talking to."

"Looks like a capable young chap," responded the other voice, which Tom did not recognize.

"Oh, yes," Willam admitted. "But this time I think he has bitten off more than he can chew."

"What do you mean?"

"Well, he claims to have invented a sky train—a sort of arrangement of a lot of gliders, without motors, towed along by a big, motored airplane—wants to make cross-country flights, just like a railroad train. Passengers in the gliders—a car, or glider, dropped off here and there at big cities—other gliders filled with passengers hoisted up into the air by small, auxiliary motored planes and hitched to the rear of the sky train in flight—that sort of thing."

"Well, did you let him have the money?"

"I did *not*. At first I was rather inclined to, for I know Tom Swift and his father have had some big successes to their credit. But, just in time, I got word that all wasn't so well with the sky train proposition."

"What do you mean—not so well?"

"It doesn't work—something wrong with the coupling device that is vital to the success of the idea. I got a tip over the telephone that, just before he came to me for a loan, Tom Swift had a serious accident to his sky train."

Tom passed on with Mary's clubs, but his heart was beating fast. So that was what caused Lester Willam to refuse the loan—the mysterious telephone message he received during the conversation. Some one had called up the banker at the golf club and had imparted the information. It had not come in a natural way, news filtering out of the big plant as it often did, concerning Tom's inventions. Some one in or near Shopton who had seen, or heard about the accident, had lost little time in telephoning word of it to Willam.

"Who could it have been?" mused Tom as he gave the bag of clubs to the professional to put away. "The news got here almost as soon as I did, and I didn't waste any time on the road. Maybe the telephone message came from my own plant, though I didn't think I had any traitors there now. I've got to look into this. It's bad business!"

Tom Swift paused a moment to recover himself after hearing this momentous bit of news. He did not want his wife to see the concern that must be manifest on his face. She would scent something wrong at once. And there was something wrong—something vitally wrong—when bad news leaked out of the Swift plant as soon as this.

"It's just as if," mused Tom, "some one had a direct object in not letting me get the money I need so I can't go on with this sky train work. I almost had Willam sold when, at the wrong moment, some one telephoned him about my accident. Who could it have been?"

There was no time, now, to solve this perplexing problem. Tom Swift had many other matters that needed his attention. The first, though not the most important, was to get Mary home. Then he must have a talk with Ned about money matters—cash must be raised soon—and after that the young inventor planned to try and get at the bottom of the mystery about the telephone message. He might be able to discover something through the telephone company. Tom was on good terms with some of the officers who helped him work out the details of his photo-telephone invention which created a sensation.

"Well, are you ready?" asked Mary who was waiting for Tom on the verandah again.

"All ready to go home with you, yes."

"Then you transacted all your business?"

"Transacted it in a way, yes," Tom answered, but he could not keep all the disappointment out of his voice and Mary quickly guessed.

"Then you didn't succeed in what you came out here after?" she asked as Tom helped her into his car.

"Not exactly," he replied with a wry smile.

"Was it—money, Tom?" Mary knew considerable about the Swift business and was shrewd. "Was it?" she persisted.

"Yes," Tom replied. "I came out here to see Mr. Willam about a bank loan to finance the new sky train, but he couldn't see my point of view, so he wouldn't agree."

"Then he refused to let you have the loan?"

"Yes."

"Oh, Tom! I'm so sorry!" Mary reached over and patted one of her husband's firm, brown hands on the steering wheel. "But why don't you ask daddy?" she went on. "He isn't a bank, of course, but I think he has a little spare cash."

"It's good of you to think of this, Mary, but it would take more money than I would be willing to accept from your father, even if he would lend it to me. This is a big proposition and only a large concern like a bank, or a financier

used to taking large risks, would be able to handle it. Don't worry. Ned and I will cook up some scheme to get the money—even if I have to sell my house on wheels!" he exclaimed.

"Oh, Tom! You wouldn't sell that wonderful auto, would you?" asked Mary, for the house on wheels had served to rescue Mary from dire peril at one time and in it she and Tom had gone on their honeymoon.

"I'd hate, like everything, to sell that big car," Tom confessed, "but I've got to get money somehow and Willam has turned me down."

"Why?"

"Oh, he heard about a little accident we had out at the plant this morning and it made him doubtful of the success of my sky train. I wish I knew," the young inventor murmured, "who it was that telephoned to him that time."

"Who, Tom? Who telephoned and to whom?"

"Lester Willam. Oh, I see you're going to get it all out of me," he went on with a laugh, as he looked at his pretty wife. "So I may as well tell you," which he did, from the beginning of the test of the sky train to the accident and his final unsatisfactory talk with the bank president.

"That's a shame!" exclaimed Mary with energy. "I'd like to tell that Mr. Willam what I think of him!"

"He'd hear plenty!" remarked Tom with a chuckle. "But I think Ned and I can work it out by ourselves, Mary. Only we have to work fast. I want to make a successful flight out to the Pacific coast so when my sky train is put on exhibition at the World Exposition it will create a sensation and bring in enough orders to pay off the loan I'll have to raise."

"Are you going to fly out there in the sky train yourself, Tom?"

"I expect to, Mary."

"Then I'm going with you!"

"Oh, I—I'm not so sure about that," Tom said.

"Well, I am!" his wife declared. "Don't you think I'll add a nice tone to the exhibit at the Exposition?" she added slyly, with a laugh.

"Oh, you'll add tone all right—but—well, I'll see about it. Look out there, you! What's the matter? Don't you know how to drive a car?" Tom suddenly yelled, for a young man, in an old roadster, came around the curve in the road at such speed and so recklessly that Tom had to swing his wheel over sharply to avoid a collision.

"Oh, Tom! Look out! You're going in the ditch!" screamed Mary.

## CHAPTER V

### HOT WATER

ONLY by skillful handling of his automobile did Tom Swift avert what might have been a bad accident. As it was he managed to skim the edge of the roadside ditch, the sight of which gave Mary a fright. Then he had the car back on the highway again, brought it to a stop and looked back for a sight of the offending driver.

The other motorist was not to be seen. He had kept on in his careening roadster, not stopping to see what damage he might have caused the car coming around the curve, which curve he, himself, took at dangerous speed.

"Road hog!" muttered Tom, whose nerves were not easily disturbed. "Did you notice the license number of that car, Mary?"

"No, I didn't. I got so excited, thinking you were turning out into the ditch, that I didn't notice anything. Did you know the driver?"

"I wouldn't want to be too sure," said Tom, "but he looked like a young fellow from my shop who is a new employee."

"One of your men?" asked Mary in surprise.

"I think so—his name is Davis Daniel—he came to me well recommended. He's sort of an office assistant, draws working plans and is a good mechanic, though he doesn't really work in the shop. I'm not sure it was Daniel, but from the hasty look I had, it seemed to be him."

"Whoever it was, he gave me a scare," said Mary whose heart, even yet, had not resumed its normal beat. "Oh, I could see us all piled up in the ditch!" and she gave a little shudder.

"I guess I could have jumped it in this car," Tom said with a smile. "It's pretty sturdy."

Tom left Mary at the house, and when she asked him if he weren't coming in, he said:

"I must go to the office and have a talk with Ned. We've got to do something about raising money."

"Oh, Tom, I wish I could help you!"

"You do help me a lot, Mary!"

"Do I? How?" she asked with a pleased smile.

"Just by being my wife!"

"Oh, Tom! Don't be silly!" and with a blush she ran in.

Tom proceeded to his office after putting his car in the garage. He found Ned waiting anxiously for him.

"Is Daniel here?" was Tom's first question.

"Why, no," Ned replied. "He came to me a while ago, said he had finished up all you asked him to do and, as it was nearly five, asked if he could go. I didn't see any reason for keeping him so I said he could. Why?"

"Did he go off in his car?" asked Tom.

"Didn't know he had a car. Why, what's the matter?"

Tom briefly explained about the near collision and Ned agreed that if Daniel was that kind of a driver he wasn't safe to have around.

"I'll make some inquiries tomorrow, Tom," his financial manager said, "and see if he left here in a roadster of the make you saw. If we can pin it on him, you'd better let him go. But what about the money? Did you get it from William?"

"No, I didn't, and a queer thing happened. He was tipped off, by telephone, about the accident we had here, and just in time to kill my chances for having him make the loan." Tom detailed all the circumstances at the golf club.

"Whew!" Ned whistled. "That looks bad! Some underhand work is going on around here. We must try to get at the bottom of this."

"Surest thing you know, Ned. And now about money. I guess you'll have to try Mr. Damon's bank in Waterfield."

"I will, first thing in the morning. But what are you going to do now?"

"Work on that coupling jigger. There's something wrong with it or that glider wouldn't have cut loose. I've got to change it. I think I know what the trouble is, it's in the shackle bolts and wrist pins. They need to be a bit larger and stronger. And the magnetic switch is too sensitive. I'll change it so it takes a more powerful current to release it and I think that will fix things. Now you can give all your attention to the financial end, Ned. I'll work on the mechanical part. I have great hopes of my sky train!"

"That's good, Tom. I wonder if——"

But before Ned could finish his sentence there was the noise of some one approaching along the outside corridor that led to Tom Swift's private office and laboratory.

"I told them not to let anybody in here!" Tom exclaimed, a bit put out. But when he heard a voice saying: "Bless my rice pudding, Rad, you needn't go ahead to announce me!" Then Tom and Ned smiled and murmured together:

"Mr. Damon!"

"Bless my front door, Tom Swift, but what's this I hear about you?" exclaimed the jolly, eccentric man as he pushed open the office door. "Oh, you're not killed—either of you!" he went on in relieved tones, as he looked

from Tom to Ned. "But what happened?"

"What did you hear happened?" asked Tom.

"Why, I just read, in the last edition of the Waterfield *Times* that there was some sort of an accident out at your plant, Tom."

"Only a little one. What did the paper say? Hang these reporters, anyhow!" exclaimed Tom with a smile. "They get stuff in spite of me—and not always the stuff I want them to have. But I can't blame them."

"It didn't give many details," Mr. Damon went on. "Just said an airplane crashed on your testing grounds, Tom, and that one man was hurt. I was afraid it might be you."

"It was Northrup, one of my pilots," Tom said, "and he wasn't much hurt—just bruised and shaken. And it wasn't a plane that crashed—only a glider, which is quite a different sort of horse. It wasn't really much of an accident."

"I'm glad to hear that!" murmured Mr. Damon. "I can go back slower than I came over."

"Are you in a hurry to go back?" Tom asked.

"Why, bless my apple pie, I'm not, really, Tom Swift! My wife is away from home, as it happens," said Mr. Damon with a wink at the two young men, "so it doesn't matter whether I stay out the rest of the night or not. But what's doing? Have you a new sort of flying machine I can go up in?"

"We have a new sort of flying machine," said Tom with a smile, "but you can't go up in it just yet."

"Bless my excursion ticket, why not?" demanded Mr. Damon.

"Because it's going to cost you money!" added Ned with a laugh. And then, in response to the questioning looks of their odd friend, the young men explained matters to him, stressing the need of a bank loan and the refusal of Lester Willam of the Shopton bank to make it.

"So you want me to put in a good word for you at the Waterfield bank, do you?" asked Mr. Damon. "Well, bless my adding machine, I'm a director in that bank and if they don't make you a loan, Tom Swift, I'll resign, that's what I'll do!"

"Let's hope there will be no need of that," Ned remarked. "Now here's what we want and the approximate dates when we'll need the different sums. We don't want it all at once, but will require some cash at different times as Tom gets on with the work."

"You see," Tom explained, "I have, already, the big towing airplane. But I'm pushed for time in getting this sky train ready for the World Exposition, so I've got to have the passenger gliders built outside."

"You mean in another plant?" asked Mr. Damon.

"That's it, yes. And you can tell your bank that we'll give them good security for the loan."

"Oh, bless my ledger, Tom Swift, they won't worry about that! I'll take care of it for you. And now when can I see this wonderful sky train of yours?" he asked eagerly.

"I'm not so sure as I was that it's wonderful," Tom said with a smile. "But I'll be ready for another trial in a few days and you can go up with us—I mean in the airplane, Mr. Damon. I won't let you risk yourself in a glider yet."

"That's fine, Tom—I mean it's fine of you to take me up. I haven't had an exciting ride since you rescued me and your folks from the forest fire, Tom, and took us aboard the *Silver Cloud*."

"That sure was exciting!" exclaimed Ned.

Then he and Mr. Damon became busy over financial matters and Tom Swift began an examination of some of the damaged parts of the wrecked glider and the coupling device.

For many months Tom had worked hard in his shop, building a new kind of plane, powerful enough to pull several gliders. The gliders he used for experimental trips were crude affairs, as yet, small and holding only a few passengers at best. So far only the guiding pilots had gone up and cut loose in them, and this not always safely, as we have seen.

When he had his sky train perfected, particularly the coupling and uncoupling arrangement, so that a glider could be dropped from the rear and another, pulled up from the ground by a small plane, could be hooked on, Tom intended to use much larger "cars" or gliders for his train. These he had tentatively contracted for with the National Aircraft Company, and Tom hoped they would be finished in time to be shown at the World Exposition. The coupling device was Tom's special patent and that would be made in his own shop.

"Well, Ned," remarked Mr. Damon as he put some papers of memoranda in his pocket, "I'll attend to this for you as soon as I can, and let you know. You can make yourself easy about the money, Tom."

"That's good. I've got enough else to think of," Tom said, for he had been working hard since coming back from the club, to discover what was wrong with the coupler. It was a baffling problem.

"See you again, soon," Mr. Damon said, as he took his leave.

"And I guess I'll be getting along," Ned added. "I'll be over early in the morning, Tom. How late you going to work here anyhow?"

"Eh? What's that?" Tom asked in a voice that showed his thoughts were not on what had been said. He held part of a coupler in his hand. "I said," repeated Ned with a smile, "how much longer you going to stay here and putter away? It's late!"

"Oh, is it?" asked Tom, still uncomprehendingly. "Well, I guess——"

At that moment the telephone rang and Tom, answering it, lost his

distracted manner as he said:

“Oh, all right, Mary! I’ll be right over to supper! I sort of forgot about it.”

“Good thing you have Mary to remind you,” Ned remarked with a laugh.  
“Skip along, Tom. I’ll lock up here. Don’t keep the wife waiting.”

“All right, I’ll go. And, by the way, Ned, better have the night watchman  
keep a special eye on this place.”

“I’ll tell him, Tom. But what’s the idea?”

“Well, there are some things going on that I don’t just like. It won’t do to  
take any chances with my new patent, sky train glider coupler. So we’ve got to  
keep watch.”

“All right. I’ll give him the order. Now skip or Mary will be telephoning  
again.”

Tom laid aside the device that was proving such a problem and went out of  
the shop to get his auto for the short drive home. As he was entering the shop  
garage, he saw Davis Daniel, the new man coming out, just having put his car  
in.

“Oh, Daniel!” Tom exclaimed, “I didn’t know you had a car. Been out for  
a spin?”

“No, sir. I just went in to look and see if it was all right. Mr. Jackson said it  
would be all right for me to park in here. I have only a second-hand roadster.”

“It’s quite all right to leave it in here,” Tom said, and the more he looked at  
the young man the more sure he was that he was the driver who had nearly  
collided with him and Mary. “I thought perhaps you had been for a ride after  
you left the office.”

“Oh, no. I got through a bit early, Mr. Newton said I might go, so I took a  
walk. Then I just happened to think I might perhaps have left the ignition  
turned on in my car and, as I didn’t want to run the battery down, I thought I’d  
come over and look to make sure.”

“Yes, it’s best to be sure,” Tom said. “Well, good-night!”

“Good-night, Mr. Swift. I’ll help you on those coupler drawings in the  
morning.”

“All right, Daniel.”

Tom watched him leave the plant premises and then went in to get his own  
car. The garage held several machines used by different managers and foremen  
of the works. At one end was a roadster.

“I’m pretty sure that’s the same roadster that nearly ran into us,” Tom  
murmured. “But I’m not positive enough to make an accusation. And I’m also  
not sure enough it was Daniel driving to accuse him of that.”

He went over and put his hand on the radiator of the roadster. Tom Swift  
started in surprise, as he said:

“But I’m sure of one thing and that is you weren’t telling the truth, Mr.

Davis Daniel, when you said you hadn't been out in this car. Maybe *you* haven't, but *some one* has. *The water's still hot!* I'm going to keep an eye on you, Davis Daniel!"

## CHAPTER VI

### A STRANGE REQUEST

WHEN Tom Swift reached his office and laboratory, earlier than usual next morning, he found Daniel already at his desk, busy over some complicated drawings.

"You're a little ahead of time," spoke Tom, giving his assistant a sharp glance.

"Well, yes, I thought I'd get these blue prints out of the way so the casting shop could turn out the parts for you. I thought maybe you were in a hurry to do some more experimenting with the sky train."

"I am, yes. But I've got to get those couplers right. Did you work out the new wrist pins and magnetic switch as I told you?"

"I think so, Mr. Swift. Take a look at these," and he passed over a sheet of drawings. Tom saw that they were along the lines he had suggested and complimented the young fellow. There was a sullen, unenthusiastic look on Daniel's face, however. He did not seem pleased even when told that his work was satisfactory. Tom had noted this characteristic in the helper before this and wondered at it. Coupled as it now was with Tom's suspicions about the road incident the day before, and having caught Daniel in an untruth, the young inventor did not know just what to do.

"I won't say anything to him now about finding that his car had been in use when he said it hadn't," Tom decided. "I'll let things ride for a few days and see what happens."

Tom examined the drawings carefully. They were well done and the young inventor was not sorry he had engaged this new assistant—that is, he was not sorry as far as his work was concerned.

"But I don't like to lose confidence in him because of my suspicions," Tom reasoned. "That makes it bad. However, I'll give him a chance to clear himself when the time comes."

"Will they do?" Daniel asked, but there was no enthusiasm in his voice or manner—still that same, sullen, unhappy look.

"Yes, very well, I think," Tom said. "Take them to Mr. Jackson and ask him to have the new castings made as soon as possible. Then see Mr. Porgen in the glider department and tell him to have three or four of the larger ones

ready for another test as soon as the new couplers are ready. I'm going to give my sky train another chance to prove it will work."

"I hope it does, Mr. Swift," Daniel murmured, but for all the real interest he showed, he might have been speaking about the weather, Tom thought.

However the young inventor had a great deal to do to get his new invention ready for another trial and he flung himself into the task with his usual boundless energy. Ned Newton came in to say he was going over to Waterfield to see Mr. Damon about the bank loan and Tom wished him success.

It was later that day when Tom, coming back to his private office after a visit to the casting shop, to see how the new couplers were coming through, received a telephone message from Ned in Waterfield.

"How'd you make out?" the young inventor anxiously inquired.

"Well, I think it's going through, Tom; I mean the loan. Mr. Damon put it up to the other directors as strong as he could and said he'd be personally responsible for you."

"Then didn't they grant the loan?" asked Tom, anxiously.

"They postponed action until tomorrow, Tom."

"Why was that?"

"Well, of course I wasn't at the director's meeting, but from what Mr. Damon told me, afterward, it seems there's a new member of the finance board, Taylor Burdick, who said he'd like a little more time to look into our financial standing."

"What was that name, Ned?" Tom asked over the wire.

"You mean the director who held things up? Why that was Taylor Burdick —new member."

"Hum! Taylor Burdick!" murmured Tom. "All right, Ned. Come on back here and you can shoot over there tomorrow to close matters if it's all right."

When Ned reached the office, finding Tom busily working over his sky train problems, the financial manager asked, curiously:

"What about this Taylor Burdick? I could tell by your voice, when I mentioned his name, that there was some catch in it."

"Why," said Tom, leaning back in his chair to rest his back, "it happens that Taylor Burdick is a great friend of Lester Willam—played golf with him that day I went to the club to see Willam about the loan. So I was just wondering, Ned, if Willam could have said anything to Burdick to influence him not to let us have the money."

"By Jove, Tom! You may be right! I never thought of that. Say, there are a lot of ends to this business, aren't there?"

"Yes, Ned. But we may come out all right. I think I'm on the right track for the coupler at last. But here's a thing I don't like," and while Daniel was absent from the office Tom related some of his new suspicions.

"Whew!" whistled Ned. "We've got to keep our eyes open."

However, next day, the skies appeared to be clearing a bit, for the Waterfield bank directors voted to grant the Swift Construction Company the large loan asked for.

"Even Burdick voted for it," Ned reported over the wire. "So I guess Willam didn't try to queer it."

"Maybe not," said Tom. "Well, that's good news, Ned. Now I'll go ahead and finish my sky train—that is, as far as I can go without the regular passenger gliders. We've got to have the National folks hurry them along."

In spite of all Tom Swift's hustling work it was a week later before the sky train was ready for another trial with the substitute gliders. New couplers had been put on all of them and the pilots who were to ride in the gliders were carefully instructed to watch them. The couplers worked by double independent control—that is, the pilot in the rear glider could release his craft from the sky train, or this could be done from the pulling airplane. Of course in each case due warning would be given. With one glider released the one that had been immediately in front of it on the sky train became the rear car and this, in turn, could be cut off either by the pilot in it or the pilot, or his assistant in the pulling plane.

As has been related, Tom also planned to have gliders raised and towed into the air from the field by an auxiliary plane, and they could be coupled to the rear of the sky train.

To accomplish this Tom had to perfect a device so that the glider towed up from the ground would be pulled by the auxiliary plane not by the "nose" as gliders are ordinarily towed, but from a point back of the "nose." This left that portion of the rising glider free to be coupled to the rear of the last glider in the sky train.

So, about a week after the crack-up in which Northrup was injured, Tom got his big, powerful towing plane out on the field and several experimental gliders were attached to it. Each glider would hold two persons in addition to the pilot, and, in order to give his new invention a thorough test, Tom called for volunteer glider riders among his air mechanics. He had no lack of them, for all Tom's men had great faith in him.

"How about you, Rad, don't you want to take a trip in the sky train?" asked Ned, when it was almost ready for the start.

"Who, me, Massa Ned? No, indeedy! I'll take a chance on bein' kicked by mah mule Boomerang—I mean I would when he was alive—but I won't go up in no such contraption as *dat!*" And Rad shuffled away as if fearful that he would be made to go against his will.

Koku, the giant, coming out of the shop, saw what was in progress and called:

"Me go, Master Tom. Koku hold glider from goin' up too high."

"Yes, I guess you'd do that all right, Koku," Tom assented with a chuckle. "And maybe it isn't a bad idea to have you in one. You weigh as much as two ordinary men and it's sort of a weight test I want now. Get in that third glider, Koku."

Hearing this, Rad came running back as fast as his rheumatic legs would allow.

"Ef dat big fool ob a giant go up in de sky train, I go too!" he exclaimed. "Take me, Massa Tom! Ole Rad ain't afraid. But I won't sit by Koku—not by dat fool giant, no, sah!"

"No, Rad," said Tom, kindly but firmly. "Ned was only joking when he spoke about you going up. I don't believe there'll be much danger, but you might have to hop out of a glider in a hurry if it landed and you might hurt your old legs. You stay here!" and he turned a deaf ear to the old colored man's pleadings. Rad was very jealous of Koku.

"Well, den ef I cain't go up, I hopes dat fool giant falls out an' breaks a laig!" muttered Eradicate, as he shuffled away.

"Let's see now, are we all ready?" asked Tom, as he and Ned were about to enter the big airplane, the motors of which were idly turning over to warm up.

"We need one more man if you plan to have three in each glider," Ned answered. "And I'm counting Koku as two in his machine."

"Another man, eh? Well, tell Mr. Jackson——"

"Excuse me!" interrupted Davis Daniel, stepping forward from amid a group of office workers who had gathered to see the test. "But will you let me go up?"

"Do you really mean it?" asked Tom, somewhat surprised by this strange request.

"I surely do. I think perhaps it would give me a better idea of what is needed in case we have to redesign the couplers."

"Perhaps you're right. Get in the rear glider. There's a man short there. You're sure you're not afraid?"

"Not at all, Mr. Swift."

"All aboard then!" called Tom. He entered the cabin of the big, towing plane with Ned Newton, and gave the signal to start.

## CHAPTER VII

### THE PARACHUTE JUMPER

"WELL, Tom, do you think everything is going to be all right?" asked Ned Newton as he sat beside his chum in the cabin of the big towing airplane.

"I hope so," answered the young inventor, as he looked over the various gauges, giving particular attention to the electric control that served to release one glider after another by means of the magnetic switch. Tom, or some one in the plane, could let a glider go, after the proper signal to those riding in it, or the occupants of the car itself could effect the release after giving notice. "If this doesn't work now," Tom went on, "I shall begin to think something serious is wrong."

"I hope not, for the sake of Mr. Damon's reputation in getting that big loan for us from his bank," remarked Ned, as Tom waited for the motors of the big craft to warm up a little more before giving the actual signal to go aloft.

"Yes, it would be unfortunate if we had anything like a bad crack-up now," Tom went on. "But I think everything is going to be all right. The new couplers seem to be just what we need. I think we may as well go up now. Those motors sound sweet to me," and he nodded forward where the big engines were slowly turning, making a purring, throbbing sound not unlike the contented noise that comes from a sleek, petted cat.

Ned was about to say: "Let's go!" when he noticed a figure separating itself from the throng that had gathered to watch the start and come running across the flying field. So the financial manager changed his unspoken words to the audible ones of:

"Wait a minute Tom! Looks like some one was coming to see you!"

"It's Mr. Damon!" Tom exclaimed. "I guess he wants to see how his bank's money is going to be spent. You're just in time," he added to the odd character. "Come on in! That is, if you want to go up with us," the inventor added as he opened a door in the side of the plane's cabin.

"Go up! Bless my umbrella, I should say I did want to go up!" cried Mr. Damon, panting slightly from his run, as he climbed in. "I didn't know you were going to start your sky train service today, Tom."

"This isn't the actual start of the service," Tom stated as he closed and fastened the door. "This is just a trial flight. Can't tell what may happen."

"You can't scare me!" spoke Mr. Damon with a chuckle. "I'm insured and my wife's away. Bless my fountain pen! I'm glad I took the notion to run over today to see you. I had no idea you were going up, but when they told me in the office that you were, I rushed out here. Just in time, I guess."

"Not a minute to spare!" Tom said, as he gave the signal for full speed to the pilot in the motor cockpit.

A moment later the big engines broke out into a roar, the airplane began to taxi across the field, drawing after it five experimental gliders, each one containing three men, Koku, in his craft, counting as two. It was Tom's intention to cruise about in the upper regions for some time, noting the action of the towed gliders. Then he would release each succeeding rear one in turn, letting them float down to earth under the guidance of the pilots in charge of each one.

"And if that works all right, tomorrow we'll try hitching on a glider in full flight," Tom told Ned.

"That will be a test!" agreed the financial manager.

Up and up rose the great plane, pulling after it the five gliders. It was a wonderful sight, the most ambitious trial flight Tom Swift had yet attempted of his new invention. So impressive was it that the group of shop employees gathered on the field set up a loud cheer, which, however came only faintly to the ears of those now aloft.

"Well, we're up, anyhow!" remarked Ned as, after attaining a considerable height, the pilot of the plane straightened out on a level course.

"Yes," Tom agreed. "And everything seems to be going fine. I'll just ask Lacter and Turtan how things are," and he picked up the telephone which communicated with the two pilots in the forward motor compartment of the big plane. There was some space between the pilots' compartment and the cabin where Tom and Ned were and where, later, passengers would ride, so it was necessary to communicate by means of the telephone. Likewise it was necessary to use the wire if Tom wished to talk to any of the occupants of the following gliders. When a glider left the rear of the sky train to descend to earth, this telephonic communication was automatically cut off. It was restored in like manner to the new glider that might be attached.

"How's she running, Lacter?" asked Tom of his chief pilot.

"Fine, Mr. Swift," came back the answer over the wire. "As smooth as silk and twice as fast. Motors never worked better."

"That's good. Better start to circle now. We'll make one big round of the field and then I'll begin to drop off the gliders. I'll tell you when."

"Very good, Mr. Swift. We'll stand by for orders."

Though Tom had spoken of a "big circle of the field," unless one had seen the experimental grounds of the Swift Construction Company he would have

had a very inadequate idea of the extent of this curving line. For Tom and his father had gradually added to their holdings until now, for trying out airplanes and similar machines they owned a big extent of country. To circle about it, meant to cover many miles and thus Tom would always be over his own territory in conducting tests, some of which might end rather disastrously.

Well aloft now, and out of sight of the buildings making up his group of shops, Tom looked down on the green extent of country, woods and fields that lay below them. It was a pretty sight and, any other time, Tom might have spent a little while admiring the scenery. But now he was too anxious about the success of his experiment. His eyes roved from one control handle to the other, and thence to the various gauges which indicated how the different mechanisms were operating.

"There isn't too much strain, is there, Tom?" asked Ned as he noted his friend jotting down some figures after consulting one particular dial.

"No, I think not. Of course we'd need a big blow or a heavy storm hitting us head on to give the maximum strain. But I think I have left enough margin of safety. Just now the pull exerted by the towed gliders is almost negligible."

There had been more than one anxious conference in Tom's plant, between himself and his consulting engineers, as to the pull that would be exerted on the towing plane by the string of gliders behind the craft. Just as the coupling links and pins on the old fashioned railroad cars, and as the drawbars and heads on the newer style, take the strain as the units are being pulled along by the locomotive, so Tom's patent coupling and releasing device must stand the strain. Once the inertia of starting was passed, this strain was slight. But it was terrific on the start, especially when the airplane was nosing up at an angle to gain altitude. It was like a locomotive pulling a string of cars up hill.

So, too, in case of a storm, with a head wind blowing against the plane and gliders, there would be a greater strain than in a calm. All the stress and strain had to be calculated and allowed for in making the couplers and in building the gliders. Likewise the gliders must be staunch enough to fend for themselves when released to coast to earth with their loads of passengers.

"But everything is working fine," Tom said, as he made a note of the stress pull and strain. "It's well below what I thought it was. Of course when we hit into a storm there may be a different story, but I'm hoping it will be all right."

"You aren't going to stay up here until you run into a storm, just to test things out, are you, Tom?" asked Mr. Damon anxiously. He had been sitting near a window gazing at the scene below.

"No," Tom replied with a laugh. "I'm afraid we'd have to stay up quite a while, for I never saw weather less indicative of a storm. I'll make that test some other time."

"Are you in a hurry to go down?" asked Ned.

"Oh, no! Bless my shoe laces, but I'm enjoying myself. Only my wife is coming home this evening and I'd just as soon get back before she arrives. She doesn't know I'm flying with you."

"I'll never tell her!" promised Tom with an understanding chuckle.

The sky train, in experimental form (for the gliders were only temporary ones) was now shooting along through the air at great speed. The pilots in the forward cockpit had gradually opened the throttles until the propellers were whirling at almost their limit. And the gliders, following like the tail of a kite, or, more properly speaking, like the cars of a train, were in perfect alignment.

Tom looked back and noted that each of the pilots of the gliders was well up in his work. They held each individual craft in a perfect alignment back of the one ahead, and the glider nearest to the airplane seemed a part of it, so faithfully did it follow the movements of the *Eagle*, as Tom had christened his big towing craft.

One complete circuit of the big flying field had been made and Tom had given the orders for another round. They were moving faster now, but in perfect formation.

Then, suddenly, when the sky train was at that part of the circle farthest from Tom Swift's plant, and near the outermost edge of his grounds, Ned Newton, who was gazing to the rear, while Tom was busy at some calculations, gave a cry of alarm.

"What's the matter?" asked Tom, springing to his feet.

"Don't tell me we are falling!" gasped Mr. Damon. "And I haven't a parachute. Where are they? Bless my necktie!"

"No, we aren't falling," Ned exclaimed, "but I didn't know you had given any signal for that rear glider to cut loose, Tom."

"I didn't give any signal!"

"Well there goes the rear glider! Look!"

Tom sprang to the observation window. At that moment the sky train was negotiating a wide curve and all the units of the coupled craft were in view. And, as Tom looked, he saw the rear glider shooting earthward.

"Something's wrong!" Tom cried. "I didn't tell Blanchard to cut loose. And they didn't signal! Something's wrong!"

"Looks as if the glider was out of control, too!" exclaimed Ned.

"She is!" shouted Tom. "There's going to be another crack-up! This is fierce! Another coupling broken! I hope Blanchard can get her in hand before they make a landing. If he doesn't——"

He stopped suddenly, for a strange sight met his eyes.

Out of the glider leaped the figure of a man, hurtling down to the earth more than a mile below.

"It's Daniel!" cried Ned. "He's jumped out! He lost his head through fear

—he's crazy!"

For a moment Tom did not speak. Then he said:

"No, not so crazy as it would seem. Look, he has a parachute!"

As he spoke something white and billowing broke out over the head of the man who had leaped from the falling glider. A moment later the parachute opened fully and began to check the descent of the jumper.

## CHAPTER VIII

### TO THE RESCUE

TOM SWIFT fairly jumped to the telephone and, a moment later, was talking to Lacter in the motor compartment.

"Head for the landing field, Lacter!" Tom called. "There's been an accident—rear glider cut loose and is falling—hope they make a safe landing. Something queer—Daniel used a 'chute and jumped. Go back to the field and I'll run over in a car and see what's left of my glider," Tom concluded grimly.

"And the other two men in her!" added Ned in a low voice.

"Yes," agreed Tom. "But one is pretty sure to be safe, at any rate."

"You mean Daniel?"

"Yes."

"How did it come he had a 'chute?" asked Ned. "Did everybody have one?"

"No," Tom stated, "and perhaps I did wrong in not equipping the gliders with a 'chute for each man. We have some in here, of course," he went on, indicating the racks where the parachutes, like life preservers on a vessel, were kept in readiness for instant use.

"But I figured," resumed the young inventor, "that all the men in the gliders were experienced fliers and could look after themselves. Besides, a glider going down isn't like a plane crashing."

"No," assented Ned, "there's no motor to land on a fellow. But it's queer Daniel had the foresight to bring a 'chute along."

"It is queer," Tom admitted. "That's one of the things I've got to look into—if there's anything left to look at," he added as he motioned toward where the glider had gone down. It was just passing out of sight behind a hill, the last look had of it by the occupants of the *Eagle*.

"They seem to have it in control," remarked Ned, hopefully.

"Yes, Blanchard and Lee are both good men," Tom added. "They may land without much damage being done. On the other hand——" he shrugged his shoulders to indicate that the rest was fate.

"Can you tell me what happened?" asked Mr. Damon who, now that he was assured of his own safety, was calmer. "Bless my bathtub, but I'm all up in the air!"

"Up in the air is right!" spoke Ned with a grim chuckle.

"We'll land soon," Tom said, for the *Eagle*, pulling after her the other four gliders, was making fast time back to the testing field. "As for what happened, I wish I knew. All I do know is that the rear glider either broke loose or was cut off."

"Cut off!" cried Ned.

"Yes," Tom said. "It may be that something went wrong with the signal apparatus, or the magnetic switch might have short-circuited, and let the tail car go down. At any rate it was cut off."

"The coupling may have broken," suggested Ned. "It did the other time, you remember."

"Yes," admitted the young inventor. "That's possible. But I thought I had the new coupler designed strong enough to stand a much bigger strain than has been put to it on this trip. No, I'm afraid something is wrong!"

Tom's voice was gloomy and Ned shared his friend's worry. The success of the sky train meant a big thing to the Swift concern. The company was heavily in debt now because of making the experimental units, and now that Mr. Damon's bank had made a large loan, some of which had already been spent, it meant a further dip into the "red" on the ledgers, if the coupling patent were a failure.

"Maybe things will not be so bad when you get to where that glider went down," suggested Mr. Damon, with an attempt to cheer up his young friends. "They may have made a perfect landing, Tom."

"Oh, it isn't so much the landing I'm worrying about," Tom said. "I think Blanchard and Lee will be able to put the glider down all right if nothing more than the coupling is broken. But it's the fact that the glider cut off without any warning, without me giving the signal and pulling the switch from here, that worries me. It shows that something is wrong in my calculations."

"I didn't know Daniel was such an air expert that he had the foresight to take a 'chute up with him," Ned remarked.

"Nor I," agreed Tom. "He knows a lot about air craft and he's one of the best designers I ever had. But I didn't know he had any flying experience."

"You don't call riding in a glider flying experience, do you?" asked Ned.

"Certainly! Lots of the best pilots have gained their preliminary knowledge and air-mindedness by starting in gliders."

"I suppose," went on Ned, as the *Eagle* flew on toward her home "nest" with the string of gliders behind her, "I suppose that you figure prospective passengers will be less afraid of getting into a machine without a roaring motor than in a regular plane like this."

"Yes, I'm counting somewhat on that," admitted Tom. "But I think the most valuable feature of my sky train is in the ability to drop off what, in

effect, are separate unit cars, or gliders, and pick up others without stopping the train itself in its cross-country run."

"Do you mean you are going to fly the *Eagle* from here to San Francisco without stopping for refueling?" asked Ned.

"That's what I plan to do," Tom stated. "I think that will be a big advertisement. Think of making the run from New York to 'Frisco without a stop. That's what the passengers in the *Eagle* will be able to do. Of course those who want to make intermediate stops will take a glider, and passengers we pick up on the way out will do likewise. But this may all go flooey, Ned, if I find out my coupling jigger is in the soup."

"It works all right with these other gliders," stated Ned. "Or it has so far."

"Yes, I'm going to give the releasing mechanism a test right away," Tom went on. "But no chain is stronger than the weakest link. And if something was wrong with the coupling of that rear glider, it may be wrong with all the others," and he waved his hand toward the string of gliders back of the *Eagle*. "However we'll know pretty soon," he said with something like a sigh.

They were now over the landing field again, close to the big shops, and Tom signalled to the plane pilots that he was going to begin to release one glider after another. When the last one, attached directly to the *Eagle*, was cut off, the big plane would go down.

"Stand by to cut loose!" Tom called to the pilot of glider No. 4, counting the one that had fallen as No. 5.

"All in order!" answered Miskon, the pilot of No. 4.

"Here you go!" cried Tom over the telephone wire and he pulled the switch controlling the magnetic coupler. An instant later the glider went gracefully down in perfect control, making a fine landing.

"One to the good!" remarked Tom. "I'll let the next glider cut herself loose and see how that works." By that Tom meant he would let the pilot in No. 3 operate the releasing mechanism, which, as has been said, was dual, though operated separately from either location.

"Stand by to cut off!" Tom called to his man.

"Right!" came the crisp response.

There was the flash of a signal light in the cabin of the *Eagle*, showing that another glider had been released. No. 3 went down in perfect control.

"Well, that's better," Tom said.

In quick succession gliders 2 and 1 went back to earth and then the *Eagle* herself settled to the field.

"And now to see what happened to Blanchard, Lee and Daniel!" cried Tom as he jumped from the cabin, followed by Ned and Mr. Damon. "Get out my electric runabout, Koku!" Tom called to his giant helper who, with others, had hurried out to greet the passengers in the *Eagle*.

A few minutes later Tom and Ned, in one of the fastest cars that ever traveled a road, were hurrying toward the scene of the glider's fall, to the rescue of those who had been in the craft.

What would they find when they got there?

## CHAPTER IX

### HOT WORDS

“WHAT do you think happened, Tom?”

These were the first words spoken between the two friends in some time, after the speedy electric car had left the Shopton plant. For several miles they had rushed along in silence.

“What do you mean, Ned? Happened where?”

Ned Newton pointed ahead toward the place where they were going—the scene of the glider crash. Then he added:

“I mean what do you think happened to cause the glider to fall? You didn’t cut it loose, neither did Lacter or Turtan, and there wasn’t any signal from Blanchard or Lee. Those are the only ones who could have done it.”

“You’re leaving out the possibility of an accident, Ned.”

“You mean the coupling might have broken?”

“Yes. Or——” Tom did not continue. His silence might have been caused by negotiating a turn in the road where the highway was narrow, and just then another car was passing. But, somehow, Ned Newton did not ascribe Tom’s silence to any of these causes. In support of this he asked:

“You mean the coupling might have been *purposely* broken, Tom?”

“It’s possible, yes, but I didn’t want to go so far as to say that, Ned.”

“But who would break it? Not that there was a certainty of causing any terrible damage by such an act—a cut off glider is supposed to reach the ground safely, isn’t it?”

“Oh, yes, but if the couplings can’t be relied upon, what good is my sky train going to be? Passengers wouldn’t want to ride in a railroad car that might be dropped off the tail of the train at any place along the route. Not that there would be any particular danger in such a cut-off, but if a man gets in a car to go from New York to Chicago, on, say, the through train to San Francisco, he doesn’t want the car he is in to come loose at Podunk Centre.”

“No, I should say not.”

“And yet, if my coupling release can’t be relied upon, that’s about what may happen to my sky train.”

“But if some one deliberately released this glider today, Tom, who was it? Surely you don’t suspect Blanchard or Lee of doing such a trick to spoil your

invention?"

"No, I trust those pilots absolutely."

"Then it must have been the other man—Daniel, that new office-helper you took on, Tom! Why, if he did such a thing as this, I'd——"

"Go slow, Ned," Tom advised with a smile as he let the car out at top speed, for now they were on a straight stretch with little traffic. "I haven't said anything against Daniel. That man came well recommended and he has done good work. I value his services."

"And yet," proceeded Ned as his friend paused, "how do you account for one thing?"

"What's that?"

"He went up with a parachute as if he knew something was going to happen, and was ready to jump when he had to—as he did."

Ned's voice was triumphant. He did not imagine Tom could refute this argument. But the young inventor said:

"Daniel isn't a flying man. He has gone up before, or I shouldn't have let him be a passenger in the glider this time. But anyone who has not had much flying experience might, naturally, take a parachute along when undertaking an experimental flight. There are plenty of 'chutes around the plant. My guess is that Daniel just naturally picked up one to have along in case of emergency. Just as you or I might take a life preserver along if some one invited us to ride in a new-fangled boat."

Ned thought this over and said:

"Well, maybe you're right. But, all the same, I'd watch Daniel if I were you."

"Oh, I shall! I'm taking no chances," said Tom. "And I wish this accident today hadn't happened. I hope we find some of them alive, at any rate."

"Daniel is sure to be alive. His 'chute opened, for we saw it," commented Ned. "As for the others, I fancy Blanchard and Lee are good enough pilots to have made a safe landing."

"Yes, I hope so. Well, we ought to be getting pretty near to the place now."

As they swung off the main road, taking a course over a highway passing through a country district that would take them to the scene of the accident, they passed a country lad rattling his way toward them in an old car. Tom slowed up his speedy machine.

"Did you see anything of an airplane crashing down around here?" Tom asked the lad who slowed down when he saw that the occupants of the other machine wished to talk. Tom used the word "airplane" in preference to "glider" thinking that the latter might not be understood by the country lad.

"Well, I didn't exactly see the jigger crash," spoke the boy. "But I heard it. She come down not far from our place. And it was *some smash*, believe me,

mister!"

"Hope it didn't crash on your house," remarked Ned, half joking.

"Not on *our* house," the boy said. "But you ought to see what it did to Redstone Hall."

"What's Redstone Hall?" asked Tom. "A hotel?"

"No, it's a big, swell country place out here. Been nobody in it for quite a while, but a city man fixed it up this spring, and he's living there now. That airship, or whatever it was, fell right there, and it was some smash. Oh, boy!"

"Anybody killed?" asked Ned.

Tom did not wait for the answer. Fearing the worst, he sent his speedy car ahead, the lad in the old car indicating by a gesture and shouted directions that Redstone Hall was about a mile farther on.

Tom and Ned had no trouble in finding the place a little later, for they saw a throng of persons, some afoot, some in horse rigs and not a few in automobiles, hurrying toward a common centre. Tom's car easily outdistanced them all and, a little later, was speeding through the lodge gate posts of an imposing country place, built of red sand stone, whence the name Redstone Hall.

The country estate had been imposing in the days of its prime, and was beautiful enough even now. It showed recent restoration and indicated that considerable money had been spent on it to bring back some of the former glories. A wide winding road, bordered by tall trees on each side, led toward the house itself. But before Tom and Ned reached the house, where they feared the glider might have landed on the roof, they saw that the craft had come down upon a less important building of the estate. Less important in their eyes, that is, though, as events transpired, not in the minds of some others.

"Golly, Tom, look!" exclaimed Ned, pointing. "She crashed through a big greenhouse."

"That's right!" Tom assented as he saw a gaping hole in the roof of an extensive house composed mostly of glass. "That's bad! Those poor fellows must be cut all to pieces!"

The tail of the glider, up-ended, could be seen sticking out of the shattered greenhouse roof. But as Tom brought his car to a stop, not far from the place, and noted a crowd of persons about it, the feelings of himself and Ned were relieved as they saw the two pilots Blanchard and Lee limping toward them. The clothing of the men was in some disorder, and their faces and hands slightly cut, but they were alive and not badly hurt, as was evident—not hurt as much as many an aviator has been in a parachute leap.

"How are you?" asked Tom eagerly, pushing his way through the crowd to speak to his pilots. "Hurt?"

"Just a few scratches and bruises, Mr. Swift," Lee answered with a laugh.

"Nothing to speak of," added Blanchard. "But I guess that glider won't be of much use to you. Sorry, but it wasn't our fault. The controls froze and we couldn't level her off in time to avoid the greenhouse."

"She sure is a wreck," stated Lee. "But we didn't do a thing to that flower bed in there," and he nodded back toward the shattered roof.

"As long as you boys are all right, that greenhouse doesn't matter, nor the glider either," said Tom with a sigh of relief. "Did you see anything of Daniel?"

Before either pilot could answer a burly, imposing, and self-important man pushed his way through the throng near the smashed building and exclaimed:

"Who says the wrecking of my greenhouse doesn't matter?"

Then, catching sight of Tom Swift he added:

"Oh, it was one of your machines, was it, that broke a lot of my choice orchids and nearly frightened my wife to death? What's the idea, Swift, of coming down on my place in this fashion?"

In surprise Tom and Ned gazed into the inflamed, flushed countenance of Lester Willam, the new president of the Shopton bank.

"Well?" inquired Mr. Willam, sarcastically, as neither Tom nor Ned answered. "Haven't you anything to say?"

"I didn't know you lived out here at Redstone Hall, Mr. Willam," said Tom, at last.

"What has that got to do with wrecking my best greenhouse?" demanded the irate financier. "What explanation have you to make?"

"The explanation is very simple," said Tom, as calmly as he could in response to these hot words. "It was an unavoidable accident."

"Unavoidable?"

"Yes. One of the gliders, or cars, of my sky train, cut loose and came down. In spite of all the pilots could do to make a landing in a place where they would assure themselves of safety and do no property damage, they could not help coming down here."

"Oh, so it was your sky train, was it?" Mr. Willam's voice was sneering now.

"Yes," replied Tom. "We were making an experimental flight around my proving grounds."

"Well, I take it that the experiment was a poor success!" the banker went on with a cynical laugh. "And I'm more than glad I did not let you have any of our money to fritter away upon such dangerous foolishness. But you had no right to fly over my property."

"The right of any property owner to the air above him has not yet been sustained in any court," Tom said. "But I assure you that I did not fly my sky train over your property. Inadvertently we may have flown near the edge of it,

and somewhat away from directly over my own grounds."

"Then how did it happen that this glider, or a car of your sky train, as you call it, fell through my greenhouse?"

"The glider cut loose, or was cut loose without orders," Tom stated. "And, as I explained, it got out of control. You don't imagine any pilots in their senses would deliberately crash through a greenhouse roof, do you, Mr. Willam?"

"I don't know what pilots, in their senses or out of them, might do, Swift!" was the snapped-out answer. "I only know the fact—my greenhouse is wrecked and thousands of dollars' worth of valuable orchids are destroyed. My wife is suffering from a serious nervous shock, for she was just entering the greenhouse when your plane, glider or whatever it is crashed through the glass like a bombshell. You can't get out of it so easily by just saying no pilots in their senses would have done a thing like that."

"Believe me we wouldn't!" put in Blanchard.

"I should say not!" echoed Lee. "When I saw what we were headed for, I gave up! I thought we'd be cut to mincemeat!"

"It's a marvel that you weren't!" said Tom. "I don't see how you came out as well as you did."

"Well, we sort of lay back and let the glider pancake down on top of the roof," explained Lee. "We just sort of caved in on top of the glass, and as the panes were small they just sort of cracked up and didn't splinter much. I guess that's all that saved us."

"You were mighty lucky," murmured Ned.

"But the glider's done for," said Blanchard gloomily.

"And so is my greenhouse!" snapped Mr. Willam. "Where are you going, Swift?" he asked, sharply, as Tom started forward to investigate the place of the crash more closely.

"I was going in there," said Tom.

"Keep out!" snapped the banker. "You've trespassed enough on my property! You can't take that glider away until you make some provision for paying me in full for all damages—and it will be a pretty penny too, I can assure you. It's time you airship fellows got over the idea that you own the earth. I'm going to have a stop put to foolhardy experimental flights over my property. Now you get off my place! I'll hold this glider until you settle my bill for damages! Get out!"

Stamping his foot in anger, and indicating the exit with a wrath-trembling finger, Lester Willam advanced threateningly toward Tom.

## CHAPTER X

### ANXIOUS DAYS

"CAREFUL, Tom!" warned Ned in a low voice. He knew Tom's righteous anger when it was aroused, as it might easily be now.

"Oh, I'll be careful," Tom murmured. "But I'm not going to let him get away with anything like this. It was an accident pure and simple. I can't understand his antagonism."

"You can't move that glider until you pay the bill for damages in full!" went on the angry banker. "And I want you to get off my premises!"

"I certainly don't want to stay here," Tom retorted. "I only came to see if my pilots were hurt. I'm glad to say they aren't." Tom did not mention the missing Daniel. That was another part of the mystery to be looked into. "And I will say that I shall be glad to pay for the damage my craft has done," Tom went on. "But it seems unfair not to permit me to take away my property. Certainly I can't dip into my pocket now and pay for your damaged greenhouse. But I will."

"There is more than the damaged greenhouse to pay for, Lester!" broke in a new voice. "There are the lovely flowers!" Mrs. Willam, rather a pathetic, drooping figure, appeared in company with her maid.

"Certainly he shall pay for the orchids, too!" declared the banker.

"And then there are my nerves!" said Mrs. Willam. "Oh, I never had such a fright! I was just going in when there came that terrible crash! I thought the world had come to an end! I shall require a doctor for many months. My nerves are all shattered!"

"Tom Swift shall pay for it all!" stormed Mr. Willam. "And now you had better go in," he said to his wife. "Take her away," he told the maid. And to Tom: "Well, what are you going to do about it?"

"I told you I would settle for all damages," the young inventor said. "I realize I am liable, though the accident was unavoidable. I shall be glad to pay as soon as I can get around to it, and you send me a proper bill."

"You'll pay!" sneered Mr. Willam. "But what with? Didn't you come to me for a loan the other day? Where are you going to get the cash?"

"We have the cash," put in Ned, quietly. "I suggest that you look at our account in your own bank, Mr. Willam. You will find it plenty large enough to

pay any fair claim."

"Your account in our bank large?" he exclaimed, incredulously. "Since when?"

"Since yesterday," said Ned with a smile. "We succeeded in raising all the cash we needed from other sources than the Shopton bank, Mr. Willam. We have plenty of cash."

This seemed to take the angry man aback. He swallowed his feelings with difficulty, started to say something, changed his mind and then rather awkwardly stated:

"Well, if you give me your assurance that my bill for damages will be paid, you may take your machine out of my greenhouse."

"You may take such an assurance as given, Mr. Willam," spoke Tom with some stiffness.

"And if you will call up your bank," went on Ned, "you will be told what our balance is."

"Oh, I'll take your word for it," said Lester Willam. But he was, obviously, puzzled and put out. "I'll send you my bill later," he added.

"I'll send some men over from my plant as soon as possible," went on Tom. "Meanwhile may I ask that the glider be left alone and not disturbed? I want to see what caused the coupling to part," he added. "Blanchard—Lee—can one of you stick around here until I can send Mr. Jackson over with a crew?"

"I'll stay," Lee offered. He was less cut and bruised than his fellow pilot.

"Then you come back with us, Blanchard," said Tom, motioning to Ned to accompany him to the runabout left down the drive. "And we must try to locate Daniel," he went on in a lower voice. "I hope he came out of the 'chute jump safely."

"He seemed to know just how to do it," commented Blanchard. "I never saw a chap do it so quickly and neatly. No sooner had the glider cut loose than over the side he went. Almost as if he knew it was going to happen."

"And just what did happen?" asked Tom when, having left Lee on guard, he, with Ned and the pilot, were speeding back to Shopton.

"I wish I knew," the pilot said. "We were running along nicely, following every move of the plane, the communication was perfect. We were expecting an order to cut loose any moment."

"But I didn't give the order," Tom said.

"I know you didn't, Mr. Swift, and we didn't cut loose. But, all at once, down we started. That office man of yours jumped, but Lee and I stuck to the glider. We thought we could make an easy landing for, after all, it was no more than what we had been expecting—to be cut loose. But the controls froze and we couldn't escape the greenhouse. Boy, what a crack-up!"

"It's lucky it was no worse," Ned commented.

"Right!" exclaimed Tom. "I shall have to look over that coupling device carefully," he went on. "There must be some defect in it if it let go without being operated either from the glider or from the plane."

"Seems so," was Blanchard's opinion. First aid had been given him by some in the crowd that gathered after the crash, and he was now fairly comfortable. Tom had him sent to the plant hospital as soon as he reached his place. Then he dispatched a crew of men to get the smashed glider out of the Willam greenhouse. Not until then did the young inventor and his financial manager find a spare moment to sit down, look at each other and take stock of matters. They had not forgotten Daniel, but, as there was no way of knowing where he had landed with his parachute, they must wait until they got some word in order to send out and bring him in with the life-saving device.

"That was a queer one, wasn't it?" began Ned.

"You mean our glider crashing into Willam's greenhouse?" asked Tom.

"Yes. Seemed like retaliation for his refusing that loan."

"His bill for damages will make our interest rate higher than it ought to be," sighed Tom.

"And what about Mrs. Willam's nerves?" asked Ned with a laugh.

"I'm really sorry for her," Tom stated. "She must have been shocked."

"A glider going through a greenhouse roof does make a bit of a row," and Ned chuckled. They could smile, now that the affair was over, with no loss of life. But Tom was still worried about Daniel, and more worried as to what had caused the glider to cut loose. He was going to try and discover the reason for this as soon as possible.

Shortly before the wrecking crew came in with what was left of the glider, the telephone rang and Daniel reported that he had come down safely, some miles beyond Redstone Hall. He asked if a car could be sent to bring him back with the parachute, and Tom ordered one out.

"Well, Daniel, did you get hurt any?" Tom asked when, toward evening, the parachute jumper had arrived.

"Hardly a scratch, Mr. Swift. That parachute worked fine. I landed like a bird in some low bushes in a big field."

"Ever jumped before?" asked Tom.

"No, never. But I've seen lots do it and I know how to work a parachute. I just counted ten, after I jumped and pulled the ring. For a few seconds I was afraid it wouldn't open. But it did."

"Lucky for you," commented Ned.

"How did you happen to think to take a 'chute when I said you could go up in the glider?" Tom wanted to know.

"Oh, I just had a sudden thought that it would be a good thing to have one

along in case anything happened.”

“You didn’t *expect* anything to happen—did you?” Tom asked quickly.

“Why, no, Mr. Swift! Of course I didn’t,” Daniel replied. “But you know a glider broke loose the other day and——”

“You thought it might break loose again, is that it?” interrupted Tom.

“Why, yes, something like that.”

“Oh,” said Tom, briefly. “Well, it happened all right. I have yet to discover why. You didn’t see what caused the coupling to part, did you?”

“Why, no, Mr. Swift. All I know is that we were riding along in your sky train, the same as the gliders in front of us. All of a sudden I heard Blanchard, or Lee—one of them, I couldn’t be sure which—give a shout—like they were afraid. Then I felt us cut loose and I saw we were falling and I jumped—that’s all.”

“I see,” said Tom. “Well, I’m glad there were no worse results than a smashed glider and a broken greenhouse. Money will mend both those. It wouldn’t have paid for a life. Better take a day or two off, Daniel, to rest up after your jump. There’s no great rush of work for you, until after I find out where the defect is in my coupling.”

“Oh, I don’t need a rest, Mr. Swift. I’ll be at the office in the morning as usual.”

“Well, suit yourself as to that.”

That night was a busy one for Tom Swift. He had the coupling of the glider, that had fallen through the greenhouse, brought into his laboratory and, until a late hour, he and Ned, with some of the shop experts, went over it carefully. It seemed to be in perfect order, as far as could be told in its smashed condition. The magnetic switch worked all right.

“Lee,” said Tom, speaking to the pilot who had come back with the wrecked machine, “did either you or Blanchard touch the coupling in any manner after the sky train was moving?”

“No, sir, I didn’t and I’m sure Blanchard didn’t.”

“Was this other man—Daniel—anywhere near it?”

“Well, I didn’t see him near it. You know that was a big glider, Mr. Swift—a pattern of the kind you’re going to use in the sky train, and there’s plenty of room to move about in the cockpit. Sometimes Daniel did come up front from where he had first been sitting at the rear. He looked at the coupler and asked questions about it, which either Blanchard or I answered, for we knew, as long as it was patented, there was no secret about it.”

“No, it isn’t any secret now,” Tom said. “But did Daniel touch the coupler in any way?”

“Not as far as I saw. I’m sure if Blanchard had seen him he’d have stopped him. We both heard what you said, Mr. Swift, about watching it carefully until

we got word to either cut loose ourselves or to stand by while you did."

"Then I guess it was an unavoidable accident," Tom said with a sigh. "As it is now, I don't know what caused the rear glider to cut loose from the plane without a signal being given. I've got to do some hard work."

Which Tom did—very hard work—in the anxious days that followed. It was a baffling problem. He spent many nights in his laboratory while Ned took up with the Swift lawyer and the attorney for Mr. Willam the matter of settling for the greenhouse damage.

At last one midnight, when Ned was working late over the books, and Tom was in his private laboratory, the financial manager was startled by a sudden shout from his friend. It was like a cry of alarm.

"What's the matter, Tom?" Ned cried, rushing down the corridor.

## CHAPTER XI

### A GIANT'S ANGER

CONTRARY to seeing what he feared to behold—Tom Swift in the grip of some of his former enemies—Ned Newton saw his friend gaily dancing about the laboratory, with a piece of machinery in his hands, and Tom was crying out:

“Wow! By golly! Oh, boy!”

“What’s the matter?” demanded Ned, anxiously. “Are your fingers caught, Tom?”

“My fingers caught? No! But I’ve caught onto the idea at last!”

“What idea?”

“The idea for making my sky train glider coupler fool and accident proof. Hurrah, boy, I’ve got it at last!”

“What’s the idea?” asked Ned.

“So simple that it’s a wonder Koku or Eradicate didn’t tell it to me,” said Tom. “It’s a combination dual double control—that’s all. Oh, boy, I have it!”

“Double dual control?” the financial manager murmured.

“Yes. You know, up to now, and before, the tail glider could be released by either the pilot in it or by me, or some one else in the hauling plane. That is, after a signal was given. But this was the weak spot in my invention. You see, I, or some one in the plane, might forget to give the signal, and cut the glider loose, or the pilot in the glider might do the same thing. But with double dual control it isn’t possible.”

“Why not?”

“For the same reason you can’t open your bank safe deposit box all by yourself. A clerk from the bank has to turn half the lock with his key, and you, or he, has to turn the other half with your key. You can’t get in with your key alone and the bank clerk can’t get in with his key alone. It means dual double control and makes for safety.

“Now if I change this magnetic coupler a bit, no glider can get loose from my sky train until the pilot in the glider and the pilot, or some responsible party in the plane, act in concert. That will end all accidents, I think. If I had had this new control on the day we had the greenhouse crash, it wouldn’t have happened. The rear glider couldn’t have gotten loose just because some one in

it on purpose or by accident, tripped the coupling."

"Do you think it was done purposely, Tom?"

"I can't say. That matter remains to be solved. But I think I have solved the problem of a safe coupler and now I'm going to rush things. Oh, boy, but I'm glad!"

"Yes, and you're tired, too," spoke Ned, seeing Tom's exhausted condition. "Now the next thing you're going to discover is your bed, and you're going there *pronto*—get me?"

"I get you," said Tom, but even his weariness could not keep the happiness from his voice.

Tom almost slept the clock around, for he was very tired from several nights of late work. When he finally awoke, much refreshed, he immediately set his plant force at work on the new coupling device, having it attached to all the trial flight gliders.

It would be a week or more before the change could be made and new experiments tried. Meanwhile, Tom had the *Eagle* tuned up in readiness for another sky train flight and continued negotiations for the building of a string of gliders which would be used when the new cross-country transportation system was put into operation. Tom planned to build a complete sky train, with large gliders capable of carrying several passengers. He intended to make the flight out to San Francisco, exhibit the train there and then fly back.

Owing to a rush of work in the Swift plant, (for many machines in addition to aeroplanes were being manufactured there), Tom had given orders to the National Aircraft Company to build the gliders. These "cars" were comparatively simple to make, compared to an airplane. But they must be staunch and safe for the passengers who were to ride in them. Tom Swift saw to that.

"What about the second operation of your sky train, Tom?" asked Ned one day. "You seem to be on the right track for releasing the tail glider by means of the double dual contact control of the magnetic switch coupler. But what about taking up a glider filled with passengers and hitching it to the end of the train in place of the glider that is dropped off?"

"That will come out all right, once I get this new coupler working," Tom said. "I'm not worrying about that. It will require practice and skilful piloting, but it can be done. What I want to guard against is the possibility of a glider getting loose until the proper time, and I have that now."

A test flight, several days later, showed that Tom's confidence in his new patent was justified. Five gliders were attached to the *Eagle* and went aloft. They were all equipped with the double dual control. This was Tom's name for it, though he said that, later on, he would evolve one that was more scientific.

At the last minute, when the sky train was about to go aloft with the newly

coupled gliders, Davis Daniel appeared with a parachute and asked if he might go up.

"What, again?" asked Tom with a smile. "Aren't you afraid of the risk?"

"There doesn't seem to be any risk with one of these," and the man tapped the 'chute pack on his back.

"Well, you were lucky once, but it doesn't follow that you would be lucky again," Tom said. "No, I think you'd better not take a chance, Daniel. I need you in the office. Besides, this is going to be sharp work and I need experienced pilots in every glider. Some other time I'll let you go up."

If Daniel was disappointed he did not show it as he went back to the office with his 'chute on his back.

Once more the sky train went aloft, and, at the proper time, Tom signalled for the rear glider to cut loose. This could not be done until both he and the pilot in it had each closed a certain switch. Then the glider was cut off and went down for a perfect landing.

In turn, all the other gliders were cut off from the *Eagle* and went down safely to earth. To make sure the device would work and was "fool proof," Tom tried by himself, without notifying the pilots, to cut a craft loose. It would not leave the train. Likewise when he had the individual pilots try the same thing, they could not separate their glider from the one ahead of it, or the *Eagle* itself, until Tom closed his switch.

"She works!" cried Tom exultingly, as he guided the *Eagle* to earth after the last glider had gone down. Tom was himself piloting the airplane this time.

"Good!" rejoiced Ned. "Well, what's next?"

"To practice the stunt of taking a loaded glider aloft and attaching it to the rear of my sky plane. Then, when we get the new, big gliders from the National people, I'll be ready for the cross-country flight and to exhibit at the World Exposition."

"Better and better!" murmured Ned. "I guess we're on the right road, Tom. Well, I've finally settled Willam's greenhouse damage claim."

"And I'll wager he stuck you good and proper."

"Well, he tried to, but we fought him every inch—our lawyer was good at that. And, while we had to put up a pretty good sum, it wasn't all he asked at first. That would have been a shame! He's pretty sore and I guess something else doesn't please him any too well, either."

"What's that?"

"Finding our bank account in such good shape. One of the tellers told me he went up in the air when he found we'd got the loan from Mr. Damon's bank in Waterfield."

"What business is that of Willam's?"

"Well, I guess he was sore that he hadn't let us have the money himself

now. You know it's a large sum and the interest is a pretty penny. His bank would like that. But they don't get it. I guess old man Willam wishes he hadn't turned you down."

"I think," said Tom slowly, "that he'll find my sky train a bigger success than he counted on. I can't understand his attitude in this matter. But maybe he knows his business."

"He's too far behind the times," Ned declared. "By the way, you didn't send Daniel over to the Shopton bank to do any business for you, did you?"

"When?"

"Today."

"Why, no. You attend to all the banking business, Ned."

"That's what I thought. When I came out of Willam's office, after giving him a check in settlement of his damage claim, I saw Daniel going in by another door."

"Well," said Tom, after a moment of thought, "I suppose he had some business there. Maybe he wanted a personal loan. Or he might have been going to open an account."

"He wouldn't go in the president's office either to ask for a small loan or to open an account," Ned stated. "I fancy he tried to keep me from seeing him, Tom. But I did, all right."

"Oh, I think you're unduly suspicious, Ned. I recall, now, after you left to go to the bank, Daniel asked if he could have half an hour off, and I gave him permission. He didn't say where he was going."

"He went to the bank. Maybe it's all right. Anyhow, the way seems to be clear, now, for your sky train's first real trip."

"Got to get those National gliders first, Ned. I must shake up those fellows a bit. They're too slow to suit me."

"Get after 'em," Ned advised. "Well, anyhow, our financial affairs are in pretty good shape. The other matters are your worries, though I'll help all I can, Tom."

"I know you will. You always do."

The next few days were busy ones at the Swift plant. With the *Eagle* overhauled and the new, big gliders being made it was only a question of a short time before Tom Swift's sky train would be shooting across the country, carrying passengers, some of whom would "join" the train, so to speak, *en route*, while others would be "dropped off" at intermediate points between New York and San Francisco.

It was about a week before Tom expected the new gliders to arrive, that, crossing the shop yard to go to lunch, he saw Daniel and Koku talking near one of the doors leading into the hangar where the *Eagle* was kept.

"No! No! Not go in!" Koku could be heard to say.

"Step aside!" exclaimed Daniel. "I have to go in to make some measurements for Mr. Swift. Don't stop me!"

"I stop you all right!" cried Koku with anger in his voice. Tom saw Daniel foolishly try to push Koku out of the way. In the next moment the giant went into a whirlwind of anger.

Reaching forth one of his mighty arms he caught hold of Daniel in his big, right hand—caught him at the small of his back. Then, as one might lift a squirming beetle, Koku lifted the clerk high into the air, savagely crying:

"I show you! I show you! Now I bust you all over!"

"Koku! Koku! Stop!" cried Tom in terror. It was very evident that Koku intended to dash Daniel to the ground with all his terrible force. The man would be instantly killed.

## CHAPTER XII

### MIXED ORDERS

ALMOST frozen with horror to the spot where he stood, Tom Swift took several seconds to galvanize himself into action. After that first warning call to Koku to desist, the young inventor could not seem to frame any words. His tongue was as if paralyzed as he saw the giant raise the unfortunate Daniel high in the air, over his head, ready for the death throw.

Then, when at last he found he could move, the tragedy was averted in such a simple manner that, later, Tom had to laugh. For honest, black Eradicate, coming out of the hangar of the *Eagle*, and beholding the giant with the uplifted Daniel, gave a shrill chuckle of mirth and said:

"When yo' all gits froo wif him, big boy, let me have a shot at him! He done sass me, too!"

"What black man's mean?" asked Koku, pausing suspiciously. He and Rad did not get along any too well together.

"I means," went on Eradicate, still chuckling, obviously unaware of the impending tragedy, "when yo' all gits done wif spankin' Mistah Daniel-in-delion-den, dat I wants t' say suffun t' him!"

This was too much for the slow brain of the giant. Turned for the moment from his purpose of wreaking swift vengeance on the little man who had dared to push him, Koku lost track of his intention of dashing Daniel to the ground. He had always been jealous of Eradicate, as the black man had disliked the giant to do anything for Tom. So when Koku found that Eradicate had some interest in Daniel, the giant's wrath was turned from Daniel to Eradicate.

Slowly Koku lowered the form of Daniel, almost stiff from fright and terror, to the ground. So awful had been his experience that Daniel was unable to stand upright when Koku let go of him. He would have fallen, had not Tom Swift run to his side to support him.

"What does this mean?" the young inventor sternly asked.

"I—I don't know," Daniel faintly answered. "He made a rush for me—I tried to push him away and then he grabbed me. Oh, what a terrible giant!"

His version was not in strict accord with the truth, but Tom passed that for the moment to ask Koku what he meant by such conduct.

Koku's wrath, always of but a moment's duration, and seldom at that, was

now turned on Eradicate.

"Koku chuck black mans over fence!" muttered the giant as he made a rush for the Negro. Eradicate knew better than to stand his ground. With incoherent mutterings, Tom's old servant ran around the garage, even in his crippled rheumatic condition being able easily to elude the lumbering giant who strode after him. With the two out of the way, Tom, well knowing that Koku could never catch Eradicate, and that the giant's wrath would soon vanish, turned his attention to Daniel.

"What brought all this on?" Tom asked as he saw that his office-helper was slowly getting some red back into his pale cheeks.

"I don't know, Mr. Swift," was the reply. "I wanted to go into the hangar, on your orders, to take some measurements of the *Eagle* in readiness for the new sky train tests when the big gliders come, but when I started to go in, this giant of yours wouldn't let me. Said I had to have a paper from you—a pass I suppose he meant."

"That's right, yes," said Tom. "But I didn't tell you to go into the hangar, Daniel."

"You told me to take some of the *Eagle* measurements."

"I meant from the blue prints in the office. You can easily do it from them. Always, just before an important test of any of my machines of air, earth or water, I have them carefully guarded, either by Koku or some of my men. Koku was acting on my orders not to admit anyone, even you, without a pass from me. And you did not ask for one."

"I didn't think I needed it—just to take measurements."

"If I had wanted you to take measurements directly from the *Eagle* I would have told you so and given you a permit to enter the hangar," Tom said. "Evidently you misunderstood me, and it is lucky Koku and Rad had their little dispute when they did or I don't like to think of what might have happened to you, Daniel."

"I don't like to think of it myself, Mr. Swift," said Daniel. "It was a terrible experience!"

"I can well believe that. I never knew Koku to act like this. I must have a talk with him."

"Oh, I wouldn't bother," said Daniel with a nervous little laugh. "I'm all right now and it was just a mixup. Let it drop."

"I'll see," was all Tom answered. "And now you had better get at the blue prints. We are not making much progress on my sky train of late. Too many things have happened."

"Well, I'm glad it didn't happen that your giant let me fall after he raised me up," said Daniel with another laugh as he walked back to the office.

As Tom expected, he soon found his giant with the usual good-natured

smile on his big face. He had given up chasing Eradicate and seemed to have forgotten that he ever was angry at Daniel or wanted to chastise the black man.

"Koku, why did you start to throw the little man down?" asked Tom, speaking in Koku's own language which he had learned while a captive in the land of giants. It was much easier to understand Koku when he used his own tongue.

"Because, Master," the big man explained, "you told me to guard your ship of the air and let no one in. A little while ago I heard a noise at the back door, and I went there to find this little man trying to come in. I told him please to go away and he did. Then, later, I found him at the front door, saying you told him to come in. I asked for the paper as you told me. He had none. But he tried to go past me and when I stopped him, he shoved me. Nobody can push Koku —only you, Master," said the giant humbly, and there was a dangerous gleam in his eyes. "Did I do right?"

"You did right, Koku, to keep the little white man out," said Tom. "Obey my orders always—none are to go in to the *Eagle* without a pass from me."

Tom knew that the *Eagle* was safe from being damaged as long as Koku was on guard, and he decided to make the hangar the headquarters of the giant from now on.

"I can't quite figure Daniel out," Tom murmured as he went back to his office. "He doesn't seem stupid and yet I'm sure I told him to take the *Eagle* measurements from the blue prints. Why did he try to force his way into the garage? I must watch that man, now that my sky train is almost ready for a real test."

It was the middle of the next week, when Tom Swift, after several flights had practically completed the mechanism for sending a glider aloft, in the tow of a small plane, and after having it attached to the rear of his sky train, that he decided the time had come for a real tryout. He mentioned this to Ned.

"You mean with the big passenger gliders?" asked Ned.

"Yes," Tom replied. "Are they in yet?"

"Why, no, they haven't come," Ned answered. "I understood they weren't to be shipped by the National concern until later in the month."

"Who told you that?" asked Tom a bit sharply.

"Why, Daniel, your new helper. I was speaking to him about the gliders yesterday."

"And he said the gliders weren't to arrive until later?"

"That's right—the end of the month."

"Whew!" whistled Tom. "There's something wrong here! Get me the National Aircraft Company on the long distance telephone!" he said to his office boy. When the connection was made Tom did some fast talking into the telephone.

“What’s that?” Ned heard his chum ask. “You have a letter from me saying to delay delivery until the end of the month? Nonsense! You knew I was in a hurry for those gliders! Yes, I’ll look up the order and my last letter to you. I’ll call you back. Miss Mapes!” Tom called to his stenographer. “Get me all the late correspondence with the National people and a copy of the original order for gliders.” When these had been laid before him Tom scanned them carefully and said, triumphantly: “There, I knew they were wrong! In my last letter I distinctly stated that the gliders were to be here at the very latest the end of *this week*. I can’t see how they interpret that as *next month*.”

“Oh, but there was another letter sent them after this,” said Miss Mapes.

“There was?” cried Tom. “Who dictated it?”

“Mr. Daniel. He said you told him to.”

There was a grim look on Tom Swift’s face.

## CHAPTER XIII

### DISQUIETING NEWS

SILENCE, for the moment, seemed to fill the private office. Miss Mapes, who had been with Tom some time, looked flushed and uneasy. Ned Newton was plainly surprised at the mixup, the like of which had seldom occurred in the Swift plant. Tom reached over on his desk and pushed the button which summoned his newest assistant.

"We'll have to thrash this thing out," he said in a low voice. "Sit down, Miss Mapes," he directed the girl.

"You rang for me, Mr. Swift," suavely asked Daniel, as he entered.

"Yes. What about this mixup in the orders for the big gliders from the National people? Here is the original order and my letter confirming it and asking that delivery be made, at the latest, the end of this week. Here is a copy of my letter that I dictated to Miss Mapes. Now she tells me you dictated to her a subsequent letter saying there was no hurry about delivering those gliders. Did you send such a letter?"

"Why, yes, Mr. Swift. I did."

"What for?" Tom's voice was very stern.

"Why, I understood," said Daniel, and his voice was calm and collected, "that your new attachment coupling would not be ready for some time. One afternoon, when you were out, some one from the National concern telephoned saying they were having difficulty in making the gliders. They asked for a little more time and as I had in mind what you said about the coupling not being ready, I wrote and told them it would be all right to ship the craft at the end of the month."

"And you dictated a letter to that effect after I had written them, Daniel?"

"Why, yes, I told Miss Mapes to take the letter and——"

"That's true," the stenographer broke in. She was, obviously, flustered. "Mr. Daniel dictated the letter to me, though I know nothing of his telephone talk with the National people. But when he told me to take a letter, which countermanded your orders, I objected, Mr. Swift, for I remembered the letter you had sent. Only Mr. Daniel said he had been talking to the National concern on the wire and that as they were pressed for time, and you weren't, and as you were out, he would take the responsibility of giving an extension."

"I see," remarked Tom, slowly, after a little reflection. "That will be all now, Miss Mapes. Thank you." But turning to Daniel, after the stenographer had left the room, Tom asked: "Why didn't you mention this to me, Daniel, when I have been wondering why the gliders didn't come along at the time I ordered them to be delivered?"

"I suppose I should have done that, Mr. Swift, but it slipped my mind and \_\_\_\_\_"

"It is likely to be a costly slip—I mean to my plans," said Tom. "I will give you credit for acting in good faith, Daniel, but the next time you change my orders, let me know."

"Yes, sir, I will, Mr. Swift."

Was it a fact or did Ned Newton observe a half concealed smile of triumph on the man's face as he left the office? Ned resolved to be doubly on guard but to say nothing more to Tom about possible underhand work until he could be more sure of it.

"Daniel will bear watching," Ned mused.

For some little time Tom said nothing. He remained staring out of his office window, observing several of his men busy putting the finishing touches on a small airplane that was to be used in towing aloft the gliders to be attached to the sky train while it was in motion.

"I need some full-sized gliders to make a good test of the sky train," Tom said at length, turning to Ned. "Let's try a little bluff on those fellows. I hardly think they are working against my interests but I'm taking no chances. Get them on the wire again, Ned, and tell them unless all the gliders are delivered here within two weeks, I shall cancel the order and we'll make them right here in our own shops."

"But, Tom, we can't do that."

"You tell 'em so, anyhow, Ned old man!" and Tom chuckled.

Soon the wires were buzzing between the Swift plant and that of the National concern and finally Ned with a smile of relief turned to Tom and said:

"They'll have 'em here on time."

"I thought they would," remarked the young inventor.

From then on the Swift plant fairly hummed. Tom was not trusting to luck, and so speeded up other work that, in case of necessity, he might be able to turn his full force at making gliders, with a good chance of getting them ready in time to send his sky train out to the World Exposition fully equipped.

Though Tom and Ned had more of an eye to Daniel than ever before, there appeared no need of it. The young man attended well to his work and was a great help to Tom in relieving that young inventor of much complicated detail work. Further tests were made of attaching and detaching the small, temporary gliders to the *Eagle* and everything went well. No gliders were unexpectedly

cut off, and those swung up from the ground by the small, auxiliary plane, were attached after a few unimportant failures.

"But how things will work with big, loaded passenger gliders is yet a question," Tom said.

"At any rate the double dual control works, doesn't it?" asked Ned.

"Yes, the magnetic release, operated jointly from the *Eagle* and from the tail glider is fine," Tom said. "I think we're going to make a ten-strike, Ned."

"Hope so, old man. But I say, what's that, Tom?" Ned suddenly asked as a loud, throbbing roar sounded above the group of plant and office buildings.

"Some kind of plane or dirigible," Tom said, recognizing the sound. "But the *Eagle* isn't up, nor any of my big machines. This is a big machine, I can tell by the noise of the propellers."

"It sounds so," agreed Ned.

With one accord the two hurried to the door, intending to go out and look up to locate the source of the throbbing roar. But before they reached the portal the telephone rang. Jumping to it Tom heard the voice of Mr. Damon excitedly saying:

"Bless thirteen at a dinner table, Tom, but I've got bad news for you! Very bad news!"

## CHAPTER XIV

### RUSHING WORK

"WHAT is it?" cried Tom Swift.

"I don't know yet—I'm going out to look!" answered Ned. "Come on! It's some big air machine."

"No, I wasn't speaking to you, Ned," Tom went on, covering the mouthpiece of the telephone with one hand. "I meant Mr. Damon. He's on the wire—says he has bad news for us. Yes, what is it, Mr. Damon?" he went on, speaking into the instrument. As Ned watched he saw a startled look come over the face of Tom Swift who was listening to what the eccentric man on the other end of the wire was saying. But this time Mr. Damon was not eccentric—he was in deadly earnest.

"I just read in the paper, Tom," said Mr. Damon, "that the Acton Aviation Works, in Pleasantville, have made a sky train like yours."

"That isn't such bad news, Mr. Damon," said Tom, laughing at first. "I've known, for some time, that they contemplated such a stunt. But their sky train if they're going to call it that, isn't like mine."

"I don't know about that, Tom. The paper says they are going to start trips from coast to coast, directly, in what amounts to a railroad train in the air. I don't think you've seen that in the paper, for it just came out. But that isn't all. What I wanted to tell you was that the Acton train, airship or whatever it is, just passed over Waterfield and it's headed your way. It sort of looks, Tom, as if they had stolen a march on you. I thought I'd tell you, but bless my——"

Tom Swift did not wait to hear more. Dropping the telephone he cried to Ned:

"That's what we hear—the Acton Works jigger in the air passing over our shops. Maybe they're doing it to show that they think they have beaten me at my own game. Come on, Ned, we'll take a look!"

The throbbing and humming in the air had increased. It was as if a big dirigible was passing over. When Tom and Ned got outside and looked up they saw that it was different from any dirigible they had ever seen. At the first glance Tom Swift knew he had to deal with a dangerous rival.

"Gosh, Tom!" Ned exclaimed. "Looks as if he'd gotten ahead of us."

"No, not quite," Tom answered as he hastily took in all the details of the

strange air craft. "I don't believe those fellows up there can drop any of their units or pick one up in flight. In fact I'm pretty sure they can't. I have some inside information on what is going on at the Acton plant, and I know they haven't touched my coupler idea. But this is near enough like my idea to make it a dangerous competitor if it gets out to the Exposition ahead of me. Ned, we've got to work double time from now on!"

"I'm with you, Tom! Say, that's a queer looking arrangement, isn't it?" and he pointed to the thing of the air passing overhead. Many of the shopmen were out looking up and all about the plant could be observed people gazing skyward.

"I see what they've done," Tom remarked when the Acton train was directly over Tom's private office. "They've taken a dirigible and made a plane of it. Thus they get safety but at the expense of speed. To the tail of the plane-dirigible they have hitched small individual cabin dirigibles like a string of cars behind a locomotive. In that they have copied my idea. I never claimed to have any exclusive right to such an arrangement. Anybody can hitch several planes or several dirigibles together. My plan, though, of dropping off an individual glider and hitching another one on in full flight I do claim is original and one they can't duplicate."

"You can't tell what they will do, though, Tom," Ned warned as the sky fleet of small cabin dirigibles, hauled by the big combination craft, passed slowly toward the horizon. "They may steal all your thunder."

"Yes, that's right. They may take a notion to make some of their cars detachable. As I said, we've got to get busy right away. If they make a successful flight across the continent, even if they don't drop off and pick up individual units, they'll be the centre of attraction at the World Exposition, and I can't afford to have that happen."

"Not after the big sum we had to borrow from the bank," agreed Ned. "It would injure our credit."

"Sure!" Tom assented. "The first exhibitor out there with a sky train, or for what passes for one, is going to get the cream of the business. And I'm going to be that exhibitor, Ned!"

"I hope so, Tom!"

"You'll see it! Come on, now, I'm going to start things humming!"

The two remained for a few minutes longer, watching the slowly disappearing rival grow smaller and smaller. Tom half feared that he might see one of the trailing "cars", as they might be called, drop out of the combination, but this did not happen.

"I don't believe they can duplicate my special feature, Ned," Tom said. "And that's my biggest asset—my double dual controlled magnetic coupler."

"If they do, Tom, we might as well give up business."

"Oh, I wouldn't say that, but it would be a bad blow. Well, now let's get busy!"

Going back to his desk, Tom Swift issued orders to every part of his works that had anything to do with getting the new sky train ready to put on extra men and work overtime. In shops where there was no special rush for the apparatus being turned out, work was stopped and men were shifted to the sky train division of the plant.

Ned, too, had his force of office helpers send out letters to firms owing the Swift concern money, offering an extra discount for prompt settlement.

"We might need a lot more cash, Tom," said the financial manager, "and we can't borrow any more right away. So let's make those that owe us pay up."

"Sure, Ned! That's your end of the game."

When this much had been done toward rushing the work, Tom called up Mr. Damon, apologizing for having cut him off so suddenly, and explained that he and Ned had hurried out to see the Acton train passing.

"I'm glad you told me about it, Mr. Damon," Tom said. "But while that concern is a dangerous rival, I don't believe they can beat my sky train."

"Bless my phonograph, but that's the way to talk, Tom!" cried the odd man. "As soon as I read about it in the paper, and saw the jigger going over my house, headed your way, I thought I'd better let you know, though it was bad news."

"It's never bad news to know what your rivals are doing," Tom said. "I'll soon give you a ride in a real sky train, Mr. Damon."

"That's fine, Tom. But when you call up to invite me, be a bit careful, won't you?"

"Careful? What do you mean?"

"Well, if my wife is home and answers the 'phone, sort of pass it off until I can get there. She doesn't want me going up in the air."

"Oh, I see!" and Tom chuckled understandingly as he hung up.

Two main points stood out in Tom Swift's sudden plan to rush matters. He must get the big gliders to his plant as soon as possible and test them in actual dropping off and picking up while in flight. He must also find out more certainly what his rival, the Acton plant, was doing with his air traveler.

In furtherance of the first, Tom got the manager of the National Aircraft on long distance, and learned, with satisfaction, that work on the gliders was practically completed.

"We'll ship them by fast freight the end of this week," came word over the telephone.

"No you won't!" cried Tom. "I'll send out and get them."

"Why, Tom, how can you do that?" asked Ned in surprise as Tom paused a

moment in his telephone talk to shuffle some papers on his desk. Ned had his answer a moment later.

"Hold those gliders in your plant, Mr. Blakeley," Tom ordered. "Have them knocked-down for shipment and I'll send the *Silver Cloud* out to pick them up and bring them here. We'll assemble them in our plant here. In that way we'll save several days. Do you get me? Right! Good-bye!"

"The *Silver Cloud*, Tom!" Ned exclaimed, recalling to mind the big dirigible that had figured in the forest fire. "Why, you sold her to the Jardine people."

"Yes, I know. But I told you they were going to lend her to me to exhibit, with my sky train, at the World Exposition. I'll simply borrow the *Silver Cloud* a little ahead of time. Jardine will accommodate me in that, I'm sure. We've got to hustle if we want to win this fight."

"That's right, Tom. It's a great idea bringing the gliders here in that way, and it will save a lot of time. I only hope the *Silver Cloud* stunt comes off."

"I'll make it," said Tom, reaching for the telephone again to get in touch with the Jardine firm. As he picked up the instrument the bell rang. "Hello," he called and as he listened his expression changed. "Oh, that's too bad—I'm sorry!" Ned heard Tom say. "Why, yes, I guess so—Oh, sure! I'll be right over!"

Tom hung up, swung around and faced Ned.

"I hope there's no more bad news," murmured the financial manager.

## CHAPTER XV

### A LITTLE VICTIM

“WELL, that settles it!” and there was almost a hint of tragedy in Tom Swift’s voice.

“What’s wrong now?” Ned asked, anxiously.

“That was Mary,” went on Tom. “She just broke the string of pearls that I gave her for a wedding present and she insists that I drop everything and take her down to the jeweler’s to have them restrung. So I guess I’ve got to let things slide here at the shop, Ned, and do what my wife asks.”

“Sure!” agreed the financial manager with a chuckle. “I’m glad it’s no worse than that. I can run things here for a while. You owe it to your wife to take her out a bit, anyhow.”

“You’re a fine one to talk about wives!” challenged Tom. “And you and Helen aren’t married yet!”

“Give us time!” Ned begged. “And get on out of here! You’ve been too close to your work, lately. Take your wife for a ride.”

“Got to work close, Ned, if I want my sky train to beat the Acton’s. I can’t afford to loaf on the job.”

“Nobody would ever accuse *you* of loafing, Tom. But you should take some time off now and again. Give my regards to Mary.”

“I’ll do that little thing. And I guess you’ll have to call up Jardine—either brother will do—and make sure they’ll let us have the *Silver Cloud*.”

“Check!” murmured Ned as he went back to his work, having seen Tom put on his hat. The young inventor was soon at his house. Mary heard his machine in the drive and came hurrying out to meet him.

“Oh, Tom, isn’t it awful!” she burst out, holding forth her cupped hands. “My lovely pearls—that you gave me for a wedding present—all broken—scattered!”

“You don’t mean the pearls are broken, do you, Mary? Only the string,” and Tom put his arms around his wife.

“Yes, it’s only the string, but the pearls flew all over!”

“Couldn’t you gather them up?”

“Yes, I got every one. I counted them twice to make sure.”

“Then what are you worrying about?”

"Oh, Tom," Mary answered, almost tearfully. "It's you I'm worrying about. You're working too hard. You're looking pale and——"

"Yes?" her husband asked.

"And, and—I've heard it's bad luck to break a wedding gift. I don't believe that—I'm not superstitious—but when my string of pearls broke, it made me think of our wedding, and of you, and—and I decided to get you away from work for a few hours."

"You gave me quite a start when you first telephoned, Mary, saying something terrible had happened," went on Tom as his wife, having carefully wrapped the pearls in a handkerchief, got into the car beside him.

"Well, wasn't it terrible when I heard my pearls rattling every which way across the room?" Mary demanded. "And when I realized you needed a rest?"

"Well, I guess it was!" Tom had to admit.

The stop at the jeweler's did not take long and Mary was much comforted when the clerk told her he would string her pearls in a new style, much more fashionable, and in a manner to prevent them ever scattering again, should the cord break.

"How nice!" she said. "I guess after all, Tom, we aren't going to have any bad luck!"

"Of course not!" he agreed.

Neither of them knew then what was soon to happen.

Bearing in mind what Ned had said, and realizing that he had been sticking rather close to his job, of late, and not taking Mary out for much recreation, Tom decided to devote the remainder of the day to a ride in the country. He and his wife had some refreshments at a wayside inn and, early in the evening, came driving back to Shopton, each much refreshed and happier over the little outing.

Tom was sending the car along at a moderate speed through back streets, to avoid traffic in the centre of the town, when another machine, coming unexpectedly, and without a horn warning, from a side thoroughfare, nearly collided with Tom's automobile. Only the fact that he was going slowly prevented at least a slight crash.

"What's the matter with you?" Tom shouted at the other motorist, who did not stop or look back. He was an old man, not used to driving or giving others their rights of the road, Tom decided. But his righteous anger at the man was suddenly diverted as Mary screamed:

"Oh, Tom! Look out!"

Tom's eyes swung from a glaring look at the old man in the disappearing car around front once more, and just in time to see a boy, about five years old, suddenly rushing from a side lane directly into the path of his car.

A blast on the horn, the throwing out of the clutch and the putting on of the

foot and emergency brakes were automatic with Tom Swift. The auto slowed up with a screeching slide, but too late to avoid the little victim. The child ran into the rear mudguard and wheel, and was not directly struck. However, the small chap went down in a crumpled heap at the side of the car and Mary covered her eyes with her hands.

"Too bad!" Tom exclaimed as he leaped out and ran back to pick up the unconscious form of the child. There was a slight cut on the head, which was bleeding, but since the wheels had not gone over any part of the body Tom was sure the injuries could not be serious.

"Poor little kid!" said Tom. "He ran right into me instead of me running into him. He didn't look where he was going—running out of the lane the way he did."

"Is he—is he dead?" faltered Mary.

"No, and not hurt much, I think. I'm afraid I'll have to ask you to drive, Mary. I'll hold him in my arms."

"Drive where, Tom?"

"To Mercy Hospital. It isn't far. But if you can't drive, maybe you will hold the little fellow on your lap. He's bleeding a bit and you have on a light dress——"

"Yes, I'll drive, Tom."

"Are you all right now?" Tom asked, looking anxiously at his wife. "This doesn't amount to much, really. But if you're too nervous——"

"Oh, I'm quite all right now," said Mary, shifting over to the driver's seat. "It was silly of me to give way as I did. But I thought we had gone over him."

"No, he just bumped into us," Tom said. "It's queer, though," he went on, "he doesn't seem to belong around here, and there's no crowd coming out as always happens at an auto accident. I wonder where his folks are?"

It was strangely quiet in the neighborhood. There were one or two modest houses along the street on which Tom had been driving when the accident happened, but no one came out of them to give aid or answer questions as to where the little boy lived. The lane from which he had run was a narrow thoroughfare evidently connecting with the street beyond, but there were no houses in the lane.

"The first thing is to get him to a hospital," Tom decided. "I can make inquiries afterward. Let's go, Mary!" he said as he climbed in with the unconscious form in his arms.

It was a great relief to both Tom and Mary to have the surgeon at the hospital soon inform them that the child was only cut and bruised, and not seriously at that.

"It's no more than would have happened if he had run into a wall," the doctor said. "He gave himself a nasty bang on the head and that knocked him

out for a time. But he's coming around now all right. Is he your boy? If he is, I'd have his eyes looked at."

"No, he isn't my boy," Tom said. "I don't know who he is. He ran out of a lane right into me. I was going slowly at the time. But what about his eyes?"

"He'll go blind in a little while unless something is done," said the surgeon quietly.

## CHAPTER XVI

### STRANGE WORDS

“Look here, Doctor!” Tom exclaimed, startled more than he cared to admit by the surgeon’s words. “Do you mean that the boy, by running into my car, is going blind, soon, as a result?”

“Oh, no, not at all, Mr. Swift. This eye trouble is of some time standing. The child has defective vision and has had for some time. He probably didn’t clearly see your car, which is the reason he ran into it. I can’t understand why his parents haven’t had something done about his eyes. An operation is necessary and should be performed soon.”

“Is it a dangerous operation?” Mary asked.

“Not necessarily so. All operations are more or less dangerous,” and the surgeon smiled as any good workman might in speaking about his calling. “But in this case it is one that has often been performed and with almost uniformly good and successful results. But little time should be lost. You say he isn’t your boy?”

“And I don’t even know who his folks are,” Tom answered. “But I’ll go right back and find out. I suppose he’ll have to stay here?”

“Well, for a little while, yes, to recover from the shock. His injuries really amount to nothing. It is his eyesight I am most interested in. Blindness is a terrible affliction.”

“Oh, terrible!” Mary murmured. “We must do something about this, Tom.”

“Of course!” agreed her husband. “Well, Doctor, I’ll leave the boy with you and cut back to see if I can locate where he lives and who his folks are. I’ll bring them here to take charge of him. And I’ll tell them about his eyes. Then —after that—well, we’ll see.”

An understanding look passed between Mary and Tom.

“Suppose you let me stay here with the little fellow,” Mary proposed. “He may feel strange among the nurses and doctors. I’ll wait here with him until you locate his parents.”

“Good idea,” agreed Tom, and he hurried back to his car. He was soon at the scene of the recent little accident, and he rather expected to find a curious crowd about the place. But the only person he saw was an elderly woman who came out of one of the houses on the main street adjoining the lane.

"Do you know where a little boy, dressed in red knickers and a black blouse lives?" asked Tom.

"Why, that must be Davy Daniel!" the woman exclaimed. "He often stops in to speak to me, poor little chap! He's always dressed in bright colors."

"Is Davy any relative of yours?" asked Tom.

"Oh, no, sir! He lives in the street back of me—you can get to his house through that lane," and she pointed. "His father is some sort of an aviator."

"An aviator?" repeated Tom, his mind working rapidly, since he had heard the name "Daniel."

"Yes," went on the woman. "He makes airships, flies in 'em and jumps out with a big, white umbrella—at least so his wife says. I've never seen him do it, as I don't go in much for that sort of thing. I guess I'm too old. But I know Davy well—poor little chap!"

"Poor little chap," repeated Tom. "Why do you call him that?"

"It's on account of his eyes, sir. He can't see very well—he's always stumbling and falling when he comes in my place, so I'm generally on the lookout for him."

"If his eyes are bad, why don't his folks have them attended to?" asked Tom, glad that he had, thus easily, located the home of the boy.

"Too poor, I guess," was the old woman's answer. "Most of us about here are poor, sir. It's the way of the world. But why are you inquiring about Davy? Has anything happened?" Her trembling hands went to her trembling lips.

"He was in a little accident with my car," Tom said easily. "Oh, he isn't really hurt at all—only scratched. He's in the hospital, and ready to come home. But I must find his folks."

"Go right down that lane, sir, and turn to the left. It's the first house you come to. Oh, poor little Davy!"

Tom hurried along the lane, intending to break the news to the parents, but half way there thought better of it.

"I'll go back to the hospital and get Mary and the kid," Tom reasoned. "If they see him alive, and with only a couple of scratches, it will be better proof that nothing much happened, than if I tell them. They may get wild when I blurt out the news. A sight of the boy himself will be much better. I only hope the old woman doesn't talk. I shouldn't have told her. But I'll have to risk that now."

Tom hurried back to his car, speeded to the hospital and quickly told Mary and the doctor that he had located the boy's home.

"Then we must take him there at once!" Mary said.

"Sure!" Tom agreed. "Come on! How you feeling, Davy?" he asked.

"Oh, not so bad," the little fellow bravely answered. He seemed uncertain where to look—it was obvious, now, that his eyes were in bad shape though,

outwardly, they showed nothing to the casual observer. With the exception of a little bandage on his head, there was no indication of his injury by Tom's auto.

Stopping at the corner of the lane, Tom was about to lift Davy from Mary's arms, where he had ridden contentedly, when an excited man, followed by a woman who, plainly, had been weeping, ran out of the lane and stopped at the car. One glance showed Tom the man was his new assistant—Davis Daniel.

"What have you done to my boy?" Daniel cried. "Give him to me!"

He fairly snatched the little fellow from Tom's arms.

"Go easy, Daniel!" said the young inventor, calmly. "He isn't much hurt, but don't excite him. He ran into my car—it was an unavoidable accident."

"Ran into your car! You mean you ran over him!" Daniel cried, wildly.

"No," said Tom, gently, and calmly, "he ran into me. You may ask my wife about it."

"Indeed, that is the way it happened," Mary murmured. "And I assure you that Davy is not badly hurt. He made friends with me on the way from the hospital. We thought it best to take him there first to have him looked over. We really didn't know where he lived."

She was speaking to the mother now. Daniel had his little son in his arms and was kissing and fondling him until his wife took Davy on her own shoulder. Her tears fell, but she soon dried them as she saw her little son smile and she realized the accident was but a trifle.

Daniel, however, did not seem to sense this. His face was red with anger as, turning from a glance at his son in the mother's arms he faced Tom and cried:

"So you're responsible for this, too! As if what you have already done isn't enough, you try to kill my boy! But I—I'll make you——"

"Davis! Davis!" his wife murmured, putting a hand on his arm. "Don't talk like that! Davy isn't killed. He's all right—see! Here, take him into the house," and she put the boy in his father's arms and gently pushed him along the lane. "Take him home," she urged. "I will be right in."

Daniel, carrying his son, muttered something incoherent that Tom could not catch. Mary was plainly distressed by the man's words and actions, and Tom could not understand them.

"Please don't mind him, Mr. Swift," said Mrs. Daniel. "Davis doesn't quite know what he is saying. He has been under a great strain of late and at times acts queer. You see Davy is all we have and he—he isn't at all well. I'm sure it wasn't your fault that he was hurt. We try to watch him carefully, but this evening he got away. We didn't know he went down the lane. It was some time before we missed him, and then, when Mrs. Kalthen said a man spoke of Davy being in the hospital—well, I'm sure you'll understand what a fright it gave us."

"It must have," Mary agreed.

"We were hurrying to the hospital when you came along," Mrs. Daniel resumed. "I'm glad it was no worse. Don't worry about it. I'm sure Davy will be all right—I mean all right as far as this accident is concerned—and you mustn't mind what my husband said. I'll have to go, now. Good-bye!"

She hurried away, drying her eyes, leaving Mary and Tom standing in the lane.

"Well," said Tom, after a pause, "I'm glad that's over. But I must look this thing up. I'll see Daniel at the shop tomorrow. I want to know what he meant by what he said."

"What did he say?" asked Mary. "What do you mean? Naturally he was excited, but——"

"I mean what he said in reference to my being responsible for this, too. And about what I had already done. Strange words," Tom murmured. "Strange words!"

## CHAPTER XVII

### A MIGHTY SPLASH

TOM SWIFT fully intended next day, when Daniel came to work, to ask his assistant what was meant by those words. But so many things happened all at once that the matter passed from the mind of the young inventor. He spoke to Daniel as the sullen-faced and rather morose young man went to his desk, and after a casual inquiry about the boy, learning that he was playing about as usual, Tom was going to proceed with his inquiry when his telephone rang.

"Good!" Tom exclaimed when he had listened a few seconds. "That's fine!"

"Well, good news for a change?" asked Ned.

"The big gliders are ready," Tom announced, hanging up the instrument. "We must send the *Silver Cloud* for them right away."

"She's awaiting orders," Ned stated. "I'll have her out of the hangar shortly. Going to send Koku along? He could help load the knocked-down gliders into the dirigible."

"I've got plenty of other men available for that, and the National people are supposed to do the loading, anyhow. I want to keep Koku here. I'm going to have the *Eagle* closely guarded. I can depend on Koku as I can on no one else except you, Ned."

"I see you're still worrying over the time something nearly happened," spoke Ned.

"That's right, yes. I'm taking no chances. Too much depends upon the success of my sky train now. I hear the Acton people are rushing things to beat me out at the World Exposition."

"They won't have a look-in, Tom, when their sky train is compared to yours. Why, they can't drop off and pick up gliders."

"Maybe not, but first in the field means a big advantage. I want all I can get. No, I won't send Koku in the *Silver Cloud*, but I wish you'd have Mr. Jackson go. I want him to look the gliders over before they are loaded for shipment here."

"I'll do that, Tom. Anything else?"

"No, except get in all the money you can. We'll need it. I'm going to put on extra help as soon as the gliders get here."

"Our bank account is in pretty fair shape. Of course it all depends upon the success of the sky train. Make good on that and our credit goes up. Fail and \_\_\_\_\_."

"We fall down—needn't tell me," finished Tom, grimly. "But I'm not going to fail."

In a short time the *Silver Cloud*, borrowed from the Jardine concern, was on its way to the National plant, several hundred miles from Shopton. Mr. Jackson and a crew of picked men sailed in the big dirigible.

"Things will have to hum when she comes back," remarked Tom as he watched the big silver gas bag shoot along under the impulses of the motors and propellers.

The next few days were anxious ones for Tom and Ned. They received word from Mr. Jackson that the *Silver Cloud* had arrived safely and that the big, new gliders were up to specifications. Then came word that they had been loaded into the dirigible which had started back with the cargo. Record time was made on the home trip and one morning Tom went down to the plant to find the crew busy unloading the last units of what was to be his completed and perfected sky train.

"Good!" exclaimed the young inventor, with a satisfied smile. "Now let's put 'em together and have a tryout."

Inside of a week, by rushing the work, all the gliders were set up, and ready for a test. Meanwhile the *Eagle* had been groomed for a flight which would tell whether or not that craft was capable of hauling a full complement of "cars" in the sky train, "cars" that would be fully loaded. Also the smaller, auxiliary airplanes that were to take up loaded, single gliders to attach to the rear of the train, were gotten in shape. Tom planned to station one or more gliders, with an auxiliary plane, at Chicago and also at Denver for the preliminary tests of picking up a "car" load of passengers in full flight. Later other way-stations might be established. But now two would serve for the test.

While the gliders were being put together at the shop, there was shipped, by the *Silver Cloud*, an auxiliary plane and a glider each to Chicago and Denver. Tom made arrangements to use the airfields in these two cities for his experiments.

"And now it begins to look like something," Tom said to Ned one night after a hard day's work.

"It sure does," was the answer.

"Wasn't Daniel in today?" Tom asked, as he noted a pile of unfinished work on his assistant's desk.

"Why, no," Ned replied. "Last night, after you'd gone and he and I were here alone, he asked me if I thought you'd mind if he took the day off. Said he had to take his boy back to the hospital for an examination. Knowing what I

did of your innocent part in the accident, Tom, I said I thought it would be all right."

"Sure! I'm glad you did. Poor chap! I'm sorry about his boy. I intend to do something about his eyesight if I can do it without hurting Daniel's feelings. He's as touchy as a sensitive plant."

"Yes," Ned agreed. "You'll have to go slow with him. When he left last night he asked when the complete sky train would be ready for a test with the new gliders. I told him I thought tomorrow, and he asked if he could go up."

"He did?" inquired Tom, sharply. "Did he give any reason?"

"No. Just said he was interested and he thought he could do the drawings better, in case any more were needed, if he saw the actual operation of the sky train."

"I guess he's right. No, I haven't any objection to his making another trial flight. I suppose he'll pack a 'chute as he did before, but I hope he doesn't have to use it."

"It would be more than a coincidence if he did," Ned commented.

The day came, at last, when Tom Swift was to give his sky train a test of pulling a full load of gliders. The *Eagle* was to do this. Then descents would be made and the ascents tried. This feature was much more difficult to accomplish than the letting go of gliders and Tom was quite anxious about it.

"Well, let's go!" he said to Ned at length, as, having looked over the sky train on the ground, Tom led the way to the cabin of the *Eagle*.

"It's sort of do or die, isn't it?" remarked Ned.

"Yes, but I have no intention of dying. We'll make a success of this, you'll see!"

"Hope so. Going to take Mary up this time?"

"No, not until I test everything out."

The new gliders had all been equipped with the double dual magnetic control, and the "cars" of the sky train extended in a line back of the *Eagle*, the motors of which were slowly turning over to warm up.

Tom had given orders that his most experienced pilots were to be in charge of the airplane and each individual glider. He and Ned would be in the cabin of the plane, and Tom himself was ready and competent to pilot the big craft if need be.

In each glider there were to be ten persons. More could be accommodated, but this number was sufficient for a good test. The test passengers were mostly men from the shops and friends of theirs who were only too eager to take what little risk there was for the sake of the thrill and experience.

"Do you mind if I go in the next to the tail glider, Mr. Swift?" Daniel asked as the time for the start drew near.

"Not at all. Go in any glider you like. But where is your parachute?" He

saw that Daniel did not have one on his back.

"Oh, I don't imagine I'll need it this time," said the man with just the suggestion of a smile. "I don't believe anything will happen. That new coupler certainly looks good," he went on as he bent over the device holding the tail glider to the one just ahead of it.

"I hope it works," Tom said. "How about it, Lacter?" he called to one of the plane pilots. "All set?"

"All set, Mr. Swift!"

"Then let's go!" called Tom, and amid the increased throbbing of the powerful motors, the *Eagle* began to gather speed, taxied across the big field and then suddenly arose, pulling the loaded gliders after her tail like the appendage of a boy's kite.

Up into the air rose Tom Swift's sky train for the first time fully equipped and loaded, and with the new gliders intended to be used in the cross-country flight. Up and up and then, straightening out, the mighty traveler of the air went ahead like some strange, immense snake.

"She works, Tom! She works!" cried Ned.

"Seems to," was the answer. "But we've got to wait a bit. I'm going to signal to have a glider hoisted up and attached to the rear as we skim along. Then I'll have that one cut off. It will prove whether or not everything is all right."

"I'm sure it will be," Ned remarked.

The sky train was now going at almost full speed. Out over Lake Carlopa the pilots guided the big affair in response to Tom's signals. He and Ned gazed down into the blue waters.

Suddenly there was a slight jar felt, as if something had hit the sky train. Apprehensively Tom and Ned looked back at the string of gliders, and Ned cried:

"There she goes—cutting loose!"

Before Tom could reply the last glider in the train plunged down into Lake Carlopa with a loud and mighty splash!

## CHAPTER XVIII

### MORE SUSPICIONS

“WHAT’s the idea of that, Tom?” cried Ned. “Why did you cut the glider loose over the lake?”

“I didn’t!” Tom fairly shouted as he began frantically signalling to the motor compartment. “And Jorgin, in that tail glider, didn’t signal that he was going down. Something is wrong, Ned!”

“You don’t mean another accident?”

“I’m afraid so, yes!”

“This sure is bad, Tom! Even with all Mr. Damon’s influence, the bank may call our loan if they find we’re having cracks all the while.”

For a moment Tom did not answer. He had made the telephone connection with the motor compartment and was about to give orders to Lacter to stand by to go down when Ned, looking from the observation window, yelled:

“They made a perfect water landing, Tom! As nice as a wild duck, and the glider’s floating there right side up! Everybody in it is waving at us and they seem as happy as clams! Why, I really believe they think you cut them loose purposely!”

“You don’t mean to say,” spoke Tom, “that the glider isn’t smashed and that no one is hurt, do you?”

“As far as I can see, Tom, the glider isn’t even scratched, and there certainly is no one hurt. Not a bit of excitement down there. They’re cheering like mad!”

“Then by Jove, Ned, we may pull out of this all right yet. If the glider made a good water landing, isn’t cracked and nobody hurt, only you and I know that this was an accident and not intentional. If we keep still, this can be passed off as part of the test.”

“Then we’d sure better keep still, Tom.”

“Certainly. But, all the same, it was an accident, Ned. Something went wrong with the coupling, and that’s no joke, even if we can pass this off as a regular landing.”

“The gliders are equipped with pontoons, aren’t they, Tom? I seem to remember that.”

“Yes, retractable pontoons. It’s as easy for them to land on water as it is on

the ground. And I must say the pilot did a nice bit of work guiding his craft down, especially when he was taken by surprise as he must have been. He didn't know he was to be cut loose yet, remember, so it's all the more to his credit."

"We'll have to raise his pay," remarked Ned. "But what happened, Tom, old man?"

"I'd give a lot to know," was the serious answer. "Stand by to let off more gliders, Lacter and Turtan!" Tom called to the *Eagle* pilots. This was quite a different message from the one he had intended to give when he realized that an accident had happened. But there were no bad results from the accident and Tom and Ned agreed to pass it off as a regular, scheduled happening.

"Stand by it is!" Lacter reported over the wire to Tom in the plane cabin.

A moment later the young inventor was in wireless telephone communication with the pilot of the plane that had dropped into Lake Carlopa.

"I'll send a motor boat to have you towed ashore," Tom said. "I want to drop off the other gliders now, and then we'll plan for a pick-up test tomorrow. How did you land?"

"Like a duck, Mr. Swift," was the pilot's quick answer. "I never handled a glider that worked sweeter—perfect control every foot of the way. I must say, though, you rather took us by surprise letting us drop so suddenly."

"That's part of this game," Tom said with a wink at Ned. The hearts of both had scarcely yet resumed their normal beat after the fright. They had feared many had been killed and the glider smashed. "I wanted you to practice an emergency landing. I'll do the same to the other pilots soon. I suppose you noticed," Tom went on, "that your control switch on the coupler was shut off, didn't you?"

"Yes, Mr. Swift, I did," the pilot said. "And I was just wondering about that when you let us go. I understood that no glider could be cut loose unless the double dual magnetic control was working. But of course you couldn't let me down without warning if my switch had been operating."

"Exactly," Tom said, with another wink at Ned. "Well, I'll soon have you ashore and I'll pick up the glider later. Is it all right?"

"Not a stay or strut strained. Perfect condition."

Tom cut off communication and turned to Ned.

"I had to do some quick thinking then," he said. "If I hadn't mentioned that the glider coupling switch was in neutral, those on her would think sure it was an accident. For you know, Ned, the gliders aren't supposed to go down until two persons act in concert in setting switches."

"That's what I thought, Tom. But——"

"In this case something went wrong. There was a real accident all right, but, luckily, nobody was hurt. The wisest course for you and me, under the

circumstances, is to pass it off as a scheduled event in our test. But, Ned, this doesn't let us out. I've got to find what went wrong with that coupling."

"How was it," asked Ned, "that the control in the glider that fell, was in neutral?"

"Some one must have tampered with it."

"And I'll wager I know who!" exclaimed Ned as the *Eagle* went roaring and soaring on her way, pulling after her the other gliders.

"Who, Ned?"

"Young Daniel! I've been getting more and more suspicious of him for some time. I don't like several things he's been doing about the office after hours. I didn't bother to speak to you as I knew you had enough on your mind. But why did you send him to that rear glider just before we went up, Tom?"

"I didn't send him!"

"But he was there, and I'm sure, now, from what happened, that he did something to the control mechanism. I didn't think much of it at the time, for I thought he knew what he was doing. But I'm sure he set the glider control switch at neutral and caused the car to fall. How he managed to work the switch in here, unless by wireless control, I don't pretend to know."

"He couldn't do that," said Tom with a shake of his head. "What probably happened was that this particular coupler was a bit weak. With one half the control in neutral, a sudden swerve of the line of gliders might have tripped the coupler and the glider fell. I see what else I must do. Before my sky train sets out on each trip I shall have to check up with each pilot to make sure all couplers and both control switches are in perfect working order. Then nothing like this can ever happen again."

"That sounds like good sense," Ned commented. "We're mighty lucky, Tom. Whew! But I was all in for a few seconds."

"So was I. But it came to me in a flash, when you said nobody was hurt, that we could pass it off this way. Well, now for some real, intended landings."

In a short time Tom signalled for the second rear glider to let go, and it went down to a perfect stop, as did all the others. None of them landed in Lake Carlopa, though the last one was cut off so close to that water that the pilot of it, in a sort of spirit of show-off and ability tried to maneuver his craft to a place in the lake. He did not have enough height to make the distance and came down on the beach, much to the thrill of the crowd that had gathered when the first car fell.

"Everything worked perfectly, Ned!" Tom said exultingly. "I think we have success ahead of us at last!"

"How about picking up these big gliders, Tom? I know they can come down as well as the small, experimental ones, even when they get loose by accident. But what about taking them up and hitching them on in the air when

the *Eagle* is roaring along?"

"That part of my sky train experiment yet remains to be proved. But I think I'll have no trouble there. If the coupler works one way it will the other. Only I've got to use more skillful pilots to hitch a glider to my train than to drop one off."

"Naturally," Ned agreed. "It's like the stunt of refueling a plane in flight."

"Exactly. Well, we'll send the *Eagle* down now, and arrange about getting that glider out of Lake Carlopa."

Seeing that all his gliders were safely on the ground (one being safe afloat) Tom called to Lacter and Turtan to stand by to set the *Eagle* down. The ship was soon in the hangar and Tom was doing his best to satisfy a number of newspaper reporters who besieged him with questions. Word of the important test had been broadcast and many journals had their best men to cover the story. In addition there were newsreel photographers with the talkie arrangement.

"It was a big success, wasn't it, Mr. Swift?" asked one reporter.

"Yes," Tom said, with a quick look at Ned, "I think you may safely say that."

Late that afternoon, when the glider had been taken from the water and was back at the plant, Tom asked Ned to come into the private office.

"I'm going to have a talk with Daniel," said the young inventor, "and I want you to be present, Ned."

"Going to accuse him of tampering with the glider?"

"I'll see about that," was Tom's quiet answer.

## CHAPTER XIX

### FAILURE

DANIEL came into the private office quietly, as he always did, and with no very cheerful look on his face. This last was also, as Ned remarked, "according to form." Tom's new assistant was anything but a friendly chap.

"For the matter of that, though," mused Tom as he looked at him, "I guess none of us would be very cheerful if we had a boy who was going blind. Poor chap! I feel sorry for him, and the boy."

"You sent for me, Mr. Swift?" asked Daniel. Usually he was most deferential in his manner. Now he seemed to show some resentment, as if his mind held the hint of revolt.

"Yes," Tom answered. "Won't you sit down?"

Daniel slumped into a chair and faced first Tom and then Ned.

"I want to talk to you about your boy," proceeded Tom. "I have already stated how terribly sorry I am for the little accident he was in where my car was concerned. I can hardly think it was my fault. But that is beside the question. I sent for you on another matter."

"Here it comes!" mused Ned. "Tom's going to accuse him of treachery and there'll be some fireworks!"

But Tom's manner was far from dramatic as he asked:

"How is Davy?"

"As well as can be expected," was the sullen answer.

"I hope he isn't suffering from his collision with my car!" the young inventor quickly exclaimed.

"No. It—it's his eyes!" The words were blurted out, as if they hurt.

"That's just what I sent for you—to have a talk about," said Tom, with as much cheerfulness as he could infuse into his voice. Ned was surprised, though he had had a previous hint of Tom's intentions in this matter. "Daniel," Tom went on, "my wife and I wish to do something for your boy. I understand, from the surgeon at the hospital where I took him after the little accident, that Davy is suffering from a progressive form of eye trouble. Taken in time, as it can be now, and an operation performed, your boy's eyes may be saved. If you wait much longer, it may be too late. Now I know operations cost money, so my wife and I want you to let us finance the cost of Davy's operation. Will you do

that, Daniel?"

Tom waited for the answer with a kind smile on his face. But the smile faded when Daniel, fairly jumping from his chair, exclaimed:

"No, Mr. Swift, I won't permit anything of the kind! Not at all! Stop! You needn't say any more!" he cried as he saw that Tom was going to protest. "I'll take from you my salary that I earn and not a cent more! That's all! I don't want to hear of this again!"

With every appearance of anger, or some other strong emotion on his face, Daniel fairly rushed from the room, leaving behind him two very much astonished young men. Tom glanced at Ned and murmured:

"Can you understand that?"

"Not in the least," Ned answered. "Of all the ungrateful chaps——"

"Never mind," spoke Tom, quickly, interrupting Ned by a raised hand. "Maybe there is something we don't understand. He may object to having his son's affliction spoken of thus openly. Daniel is a queer fellow. Did I tell you how he acted when Mary and I brought the boy from the hospital?"

"No, I think not."

"Well, it was very queer," and Tom proceeded to detail the circumstances. "Then Daniel made use of some strange words. He practically accused me of injuring him in some other way than through his son."

"What did he mean?"

"That's what I'd like to find out. And now, on top of that, comes his refusal to let me help his boy's eyes. I can't understand him at all. But say nothing of this outside, Ned. Let it blow over. Maybe, later, I can take the matter up with Daniel again. Mary will be disappointed as she is eager to help this little fellow's mother. It was pitiful to see them both crying, Ned, when we gave them back the little chap. And I think their tears were caused more by the realization of Davy's coming blindness than by the small hurts he got by bumping into my car."

"But if the lad will go blind," asked Ned, "isn't there some way Daniel can be compelled to let you help him?"

"I don't know of any law, Ned, that will compel a man to accept money, even for such a thing as this," spoke Tom with an odd smile. "But I'm not going to give up. Now let's get to work!"

There was plenty of work in the Swift plant just then. Though the towing and releasing mechanism of the sky train was practically perfected, as shown by several tests after the Lake Carlopa accident, there yet remained the perfecting of the attachment of gliders to the train, while it was moving through the air.

"And that's what we're going to do today, Ned," remarked Tom after Daniel had left the office. "This is the last lap in my race toward success in this

particular venture."

"I hope you don't fall down, Tom."

"Thanks. I don't expect to."

If Tom hoped that everything was going to be smooth sailing, so to speak, when the first tests were made of hitching one of the new, big gliders to his train, he was disappointed, though not discouraged. The *Eagle* went aloft, carrying two of the new "cars" filled with shop employees as passengers. On the ground below, attached to a small but speedy plane, was another glider of the perfected type, also filled. It was planned to drop off the tail glider of the sky train, and, as that drifted down to earth, the small airplane would start soaring up, pulling after it the other glider.

"And if everything goes well, Ned," spoke the young inventor, "you will see something!"

"Well, I'll be looking, old man!"

Tom and Ned were in the cabin of the *Eagle*. Word was given to go up, and the big craft hummed toward the sky, pulling the two loaded gliders with it. Tom, who was at the magnetic coupler control, waited until a good speed was attained. Then he telephoned to the pilot of the rear glider:

"Stand by to cut off!"

"Right!" was the answer. The two switches were tripped together, and the cut-off "car" went down to a perfect landing.

"So far so good!" murmured Tom. "Now for the real test!"

The descent of the sky train glider was the signal for the plane on the ground to start upward with its glider in tow. Getting off to a fine start in the wind, the small plane rapidly gained height and speed until it was flying after the *Eagle* which now had but one glider in its "tail."

"The idea," Tom explained to Ned, "is for the lifting plane to come after us, and a little above, regulating her speed until she is flying evenly with us, keeping her glider on a level with our rear one. Then she gradually goes a bit faster until the nose of the raised glider couples to the tail of the other glider. As soon as contact is made the plane cuts loose, zooms up and goes back to the ground."

"It sounds fine in theory," Ned stated. "And now to see if it will work in practice."

The oncoming plane, with its glider, was powerful and speedy. In a short time it was directly above the *Eagle*.

"Watch everything carefully!" Tom telephoned to the pilots in the *Eagle* motor room. And to the pilot of the lifting plane he communicated by wireless telephone, saying: "Careful now! Speed up, drop down a little and nose the glider into the coupling. But go easy!"

"Right!" was the reply.

The critical moment had come. As has been explained, the lifting plane towed up the glider by an attachment on top of the "car," as the plane would have to be above, and out of the way, when the actual coupling took place.

The pilots were maneuvering carefully. Tom and Ned watched anxiously as did those in the sky train and in the glider to be attached. They were all as eager for success as was Tom Swift himself.

There was a slight jar and tremor of the *Eagle*.

"Contact!" cried Tom, exultingly.

"Is she coupled?" asked Ned, in delight.

"She sure is!" cried Tom. But a moment later he cried in disappointed tones, "No she isn't either! There they go up! Something must have gone wrong!"

He sprang to the wireless telephone and began talking to the pilot of the lifting plane.

"What's the matter?"

"I don't know, Mr. Swift. I got the nose of my glider to the tail of the other glider, but the coupling either broke after contact or pulled loose."

"Well, try again!"

"Right!"

Once more, after minutes of nervous waiting, the skillful pilots had the two units in position. Again came the bump which told that the second glider had touched. But once more the coupling did not take place, and the lifting plane had to rise up with the glider still in tow. It was arranged that the lifting plane would not cast off the glider she brought up until it was securely attached to the sky train.

"Hum! This isn't so good!" remarked Tom. "I wonder what can be the matter?"

"Maybe the third trial will be better," suggested Ned.

"I hope so," his chum murmured. "Give it another go!" Tom called to the pilot of the lifting plane. "And try a little more speed. It may be you don't make the contact hard enough."

"All right, Mr. Swift, I'll come up faster."

"But don't ram us too hard!" Tom cautioned.

The next bump of the glider at the rear was considerably more forceful than either of the others. But again, after a momentary wait, Tom and Ned again saw the lifting plane soaring up with the glider still attached.

"No use trying any more this trip," said Tom, disappointedly. "We might have an accident. There must be something wrong with the coupler arrangement. We'll go down and go all over it again."

He gave the necessary orders and soon the *Eagle* was once more grounded, together with the lifting plane and the gliders.

It was characteristic of Tom Swift that he found what the trouble was. He went over the couplers inch by inch, and it was after hours of intensive work, that the young inventor triumphantly exclaimed:

"I have it! The nose coupling isn't long enough! It doesn't seat properly when the nose comes in contact with the coupling on the tail of the other glider. Hurray! I've got it now. I used the same size front coupler for the big gliders as I did for the small, experimental ones. I see my mistake now. All I've got to do is to increase the coupler length. Then it will be all right!"

Suddenly the telephone rang.

"Yes!" Ned answered. "What is it?" And then, as he listened his face lighted as he exclaimed: "Great news, Tom! Oh, boy, if you can only win it!"

## CHAPTER XX

### THE PRIZE OFFER

“WHAT is it, Ned?” asked Tom, as he laid aside the coupler attachment, the defect of which he had just located. “Any more trouble?”

“Trouble? No! This is good news! That was an official of the World Exposition—one of the Eastern representatives. He says the management has heard about your almost perfected sky train, and also the cross-country dirigible outfit the Acton Aviation shops are putting out, and has decided to offer a prize for the first outfit to make a complete non-stop flight from the vicinity of New York to San Francisco. I told him you’d enter the race. Was I right?”

“Sure, Ned! I’ll be there all right, and, now that I’ve found out what’s the matter with my coupler I see daylight ahead of me. Of course I could fly my sky train, as it is now, from coast to coast without stopping, towing some gliders. But I won’t do it unless I can operate both features of what I hope will be a new travel service for people in a hurry.”

“You mean you want to start the sky train, drop off a couple of gliders, one say at Chicago and the other at Denver, pick up a couple of other gliders at the same places, and all this without stopping—is that it?”

“That’s it, Ned! And I challenge the Acton concern to do the same! Maybe they won’t attempt it in competition with me, and perhaps the double glider feature—one off and another on in full flight—will not be made part of the rules. But that’s the stunt I’ve set for myself, Ned, and I’m not going to stop short of it!”

“Good for you, Tom! And now let’s get busy on this. I can see some good newspaper publicity in it for us.”

“That’s your end of it, Ned. I’ve got to start the wheels moving in making longer couplers!”

Tom’s heart was lighter, now that he had discovered the defect which had so baffled him. But, as he worked away, he could not help wondering at the strange attitude of Daniel.

“Why wouldn’t he let me help save his boy’s eyesight?” mused Tom.

He had other matters that, temporarily at least, occupied his mind, and he threw himself with all his energies into making his sky train a complete

success.

Several days after the failure to have the uprising glider attached to the sky train in flight, Tom and his helpers were ready for another trial. Once more the *Eagle* was sent aloft, towing two "cars" after it. Down below, the smaller, speedy plane waited with a loaded glider made fast ready to be hoisted into the air and attached to the tail of the train.

"Well, let's go!" remarked Tom, as he gave a last look at the new couplers.

The motors roared, up shot the *Eagle*, pulling two heavily-loaded gliders. Once more the train was sent to and fro in the sky and then Tom, not without a little feeling of anxiety, in spite of his sureness that he was on the right track, gave the signal to cut loose. The tail glider dropped off and went skimming toward earth. There never had been much trouble about this stunt.

"Stand by to come up!" Tom called over the wireless telephone to the pilot of the plane waiting on the ground.

"Right!"

Up shot the speedy plane, lifting the glider behind and below it, as though it were a feather. Once more came that careful jockeying in the air—nervous, thrilling work for the pilots. Again came the little jar that told of contact.

There was a moment of anxious suspense. Then Tom and Ned, through an upper observation window, saw the small towing plane, without the glider, soaring off toward the ground.

"Hurray, Tom!" yelled Ned, clapping his chum on the back. "She stuck! The glider's fast all right! It's a success! Wow!"

"Yes," Tom said, with a little catch in his voice, "I guess it is! The glider caught on all right, thanks to the longer coupler. Well, Ned, I think we can now have a go at that prize the World Exposition people are offering for the first sky train to reach the coast. How much did you say it was?"

"Twenty-five thousand dollars!"

"Not to be sneezed at!" commented Tom.

"I should say not—even if you had a cold!" answered Ned with a laugh. "But what are you going to do now?" he asked, as Tom went to the telephone instruments again.

"I'm going to tell the glider that just hooked on to cut off, and then I'm going to try to pick up from the ground the one that was first released. I want to make sure my new coupling will work more than once."

Tom need not have had any fears. The improved device operated perfectly. As soon as orders were given the glider that had been picked up was cut loose and made a graceful landing. A little later the small plane once more towed aloft the "car" that had first gone down, and this was quickly attached to the sky train, amid the cheers of the passengers and those of the crowd on the ground below. All this took place while the *Eagle* was moving about over the

Swift flying field, never once stopping either to drop a glider or pick one up.

"Well, now I'm satisfied," Tom said with a sigh of relief as he gave the signal to go down. "I know my sky train is a success, but I still have to prove that we can make a non-stop trans-continental flight, both dropping off and picking up gliders. That's next on the program."

"And winning the prize," added Ned.

"Right! Winning the prize!"

The week that followed was an exceptionally busy one. Now that Tom planned to fly his sky train across the United States, he needed a special permit from Washington to allow this. There was no difficulty about having this granted, as Uncle Sam was using several of Tom's inventions, one or two of which the young man had donated to the War Department as part of the defense plans of the country.

When Ned, who went to Washington to get the necessary papers, came back, he said:

"You aren't going to have it all your own way, Tom. The Acton people got the same kind of a permit just before I did."

"You don't say so," and Tom was not a little perturbed. "Did you hear if they are going to drop gliders, or 'cars,' and pick them up as I plan to do?"

"I couldn't get much information on it. I heard they plan to drop off small dirigible units, but whether they are going to pick them up I can't say."

"Well, we're ready for any kind of competition they want to give us," said Tom. "And now, Ned, I want you to get ready for a wonderful trip."

"What do you mean, Tom? I hope I haven't got to go out to Frisco to get more documents for you. I'm behind in my work here now."

"No, you don't have to go to Frisco until you make the trip with me in the sky train. But I mean I want you to come along on the first, real long voyage we'll take in my new invention. I'm going to try out the sky train in a journey of several hundred miles, and on the way we'll drop off gliders and pick them up. We'll arrange to do this twice, at different points, just as we plan to do at Chicago and Denver. I'm finishing the details now. Yes, it will be a wonderful trip!"

"I'm sure it will!" exclaimed Ned.

A knock sounded on the door of the private office where Ned and Tom were talking.

"Come in!" the young inventor called.

Davis Daniel, holding a paper in his hand, advanced. There was a strange look on his sullen face.

"Here!" he said, thrusting the paper at Tom.

## CHAPTER XXI

### A BOTTLE OF ACID

"WHAT is it?" asked Tom, in some wonderment.

"My resignation!" said Daniel, sullenly. "I'm getting through at the end of this week. I thought I'd let you know."

"Why, Daniel, what is the matter?" asked Tom. "Aren't you satisfied here? If it's a question of more money——"

"It isn't that, Mr. Swift! I'm through here that's all there is to it! I'm not going to tell you any more. Can't a man work where he likes?" he asked, flaring up.

"Why, yes, of course," answered Tom, coolly. "I have no wish to keep you if you don't want to stay." Some of the ugly suspicions that had been in Tom's mind concerning this man now came to the fore again. He wished he had investigated some things more carefully. But the rush of work to get his sky train working had driven everything else out of consideration. "Then you are going at the end of the week?"

"Yes, Mr. Swift. I'll have my work all cleaned up by that time. Now that your new sky train and the couplers are finished you have no need of me, I guess?" His voice was bitterly sneering. Tom and Ned shot wondering glances at each other, not understanding the attitude of Daniel.

"Why, yes," spoke Tom, slowly, "my sky train is about finished. I'm soon going to make a trial trip, fully equipped, with some guests on board, dropping off and picking up gliders at two places. After that I'll start for the coast exposition. But I shall be glad to keep you in my service, Daniel. I think you are a valuable man and——"

"It's of no use—I'm not going to stay, Mr. Swift. This is final. There's my resignation," and he indicated the paper he had handed in.

"All right," assented Tom. "You know your own business best."

Then, as Daniel went back to his own department, Tom and Ned talked the matter over, but could arrive at no explanation.

"Unless," suggested Ned, "he is one of those poor and proud fellows. It may rankle him that you offered to pay for his boy's operation, when he knew he couldn't do it himself. Some folks have queer notions."

"That may be it," agreed Tom. "I sure feel sorry for the poor little kid and

I'm going to do something to help him. I'm also going to have a watch kept over Daniel after he leaves here. I don't just like some of the things you and I think he did. But that won't stand in the way of aiding his boy if I can, even if I have to do it through some other channel than directly. And now, Ned, let's get busy and arrange for the final test of the sky train."

There was much to do in this connection. It was necessary to send out two of the small planes that hoisted gliders up to be attached to the sky train. One plane would be stationed at Portboro, a city one hundred miles from Shopton, and the other at Kenville, located three hundred miles farther on.

There were airports at both these places. In addition to the planes sent there, Tom also shipped two of the new, big gliders. These would be occupied by prominent citizens of both cities and they would be given a demonstration ride in the sky train. The "cars" would be hoisted into the air by the small, swift planes, and attached to the tail of the train pulled by the *Eagle*. Two gliders would also be cut off from the train, one going down at Portboro and the other at Kenville. There would be passengers in these, and in order not to disaccommodate them in getting back to their homes, Tom arranged on the return trip to pick up the gliders first dropped and let their passengers down at their homes again.

By this time many articles began appearing in the papers concerning not only Tom Swift's sky train, but the Dirigible Flyer, as the Acton concern had named their method of transportation. News of the big prize offered by the World Exposition management had stirred interest in the coming race to a high point.

Having business at the Shopton bank one day, when his arrangements for the first, formal trip of his sky train were completed, Tom Swift drove over to the institution in his speedy electric runabout and parked in a quiet street. He happened to leave his car near an open window at the side of the bank, and from this window suddenly came the sound of two voices in rather loud conversation.

One voice Tom knew to be that of Lester Willam, president of the bank. The other Tom could not distinguish, nor could he catch all the words. But Willam, who seemed somewhat excited, was saying:

"Take care, Dan. I tried to queer things by refusing the loan, but that didn't hold him back. You know the result of that. Now you say you are going to try more desperate measures. Well, I can't agree to that. If you do, it will be on your own responsibility. I'm through with you from now on. How much do I owe you?"

"That's queer talk," mused Tom as he walked on, little dreaming that the conversation vitally concerned him. "Somebody else wants a loan from Willam and he isn't making it. Sounds like trouble. This bird isn't nearly as

easy to get along with as the old president was. And I don't believe he's doing the bank any good, either. Wonder who this 'Dan' was?"

Dismissing from his mind what he had just heard, Tom hurried into the bank and almost ran into Daniel who was coming out, his face showing the stress of emotion under which he labored.

"Oh!" exclaimed Tom. "Excuse me!" for he had brushed into the man.

Muttering something which Tom could not catch, Daniel ran out to the street. And then dark and ugly suspicions again entered Tom's mind.

"Dan—Daniel!" he murmured. "I wonder if it was *Daniel* to whom Willam was speaking. He talked of desperate measures—I don't like the way things are going—not a bit! I'm going to keep my eyes open. It won't do to have something happen to my train at the last minute."

Tom's business at the bank was quite complicated. He did not have to see Mr. Willam, for which he was glad, for he did not like the new president. When he came out his mind was so filled with many things that, for a time, it did not revert to what he had heard, nor to the meeting with Daniel.

Hurrying back to the shop, Tom found things in rather a snarl. It was nothing important, but a big task, such as getting the sky train ready for what might be called a "dress rehearsal" involved many details. These did not always go smoothly nor fit in, one with the other. Tom had to iron out several difficulties and it was night when he could call it a day's work and go home. But before he left he spoke to Koku, saying:

"Don't for a moment leave the vicinity of the hangar tonight, Koku. The *Eagle* is in there with the new gliders, and nothing must happen to them. If anybody tries to get in——"

Tom was so tired that night, after his hard day, that he slept soundly. Consequently he did not know how long the telephone at the head of his bed had been ringing. He awoke with a start to hear the bell jingling and, sleepily, reached for the receiver.

"Yes! What's the matter?" he inquired.

Tom, startled with wonder and fear, heard the voice of Koku say:

"Master better come down quick!"

"Has anything happened?" Tom cried, now wide awake. "Are they trying to steal or damage the *Eagle*?"

Koku had hung up and the instrument was silent. Tom lost no time in hurriedly dressing and, getting into a speedy car, was soon at his shop. The big hangar, containing the *Eagle* and the new gliders with the coupling devices, was in darkness save for a small light in what was a sort of office. As Tom leaped from his car and ran toward the door he saw Koku step out to meet him.

"What happened?" cried Tom. "Is anything damaged?"

"Not yet," Koku answered. "But somebody try to get in one door at back

when I here at front. They no get in, but maybe better have Eradicate come watch by back door while I stay front."

"Well, you *must* have had a fright to ask for your old enemy to share a night watch with you," Tom said. "I'll give you another man—half a dozen if needed—but I think Rad is too old to be on the alert. Let's see what happened."

A hasty survey of his craft in the hangar showed Tom that none of them had been molested. When he went to the small back door and examined it by the gleam of a flashlight, he saw where an effort had been made to force it. Koku had heard the stealthy midnight visitors just in time. His approach evidently frightened them away.

Summoning watchmen from other parts of the plant, Tom gave them orders to stay in the hangar with Koku, and to let him know at once if any further attempt was made to enter the place. Then he went back home, and it speaks well for his nerves when it is recorded that he at once went to sleep. But then he knew he could depend on Koku and the other men.

The remainder of the night passed quietly and early in the morning Tom hurried to the shop, to get his sky train ready for the most important flight, save that when he should start across the United States in an attempt to win the big prize.

The *Eagle* was run out of the hangar and to that great machine of the air were attached three gliders. Already the guests who were to make the trip were beginning to arrive, for there were more applications for seats than there were seats available. Tom, of course, had reserved places for Mr. Damon, for Ned and Helen and for some other personal friends. Mr. Damon managed to elude his wife and come on the trip. Tom very much wanted to take with him his aged father, whose genius had been the guiding star of his life.

"But no, Tom, I'm too old a man! Too old!" murmured the great inventor. He turned his head away that Tom might not see his tears. Nor were Tom's own eyes dry. This was his most wonderful invention and it grieved him that his father could not go on the trip, as he had made many a trip before, in strange machines of the earth, air or water. But old age must be served even as is youth.

"Well, Dad, I'll tell you all about it when I get back," Tom promised, as cheerfully as he could.

"Yes, Tom, tell me about it. I can still *listen!*" and Mr. Swift smiled, albeit a bit sadly.

At last the sky train was ready to take the air for its epoch making flight. Police lines had to be established to keep back the crowd from the starting field. There was a great press of people, and there were newspaper reporters and movie men by the score. Tom had invited representatives of the press to

occupy the *Eagle* to observe things.

"Well, Tom, is everything all right?" asked Mary as she arrived with Helen Morton to take her place in the *Eagle* with her husband.

"We're all set," he answered. "Yes, Mr. Damon, go right in," he told his old friend who came along then.

"Bless my almanac, Tom, but this is a great day!" murmured the odd character. "It surely is! Great!"

Tom and his helpers were busy checking up on the final arrangements. The gliders were filled, all those who were to ride in the *Eagle* were now in the cabin, with the exception of Tom himself. The crowd was pressing at the ropes the police had stretched around the sky train.

Suddenly a man was seen to force his way out of a knot of people, shoved a policeman aside, duck under the rope and run toward the sky train. In a flash Tom sensed that disaster was impending.

"Stop that man!" he cried, and then he recognized Daniel. The man had a large bottle in his hand. His eyes glared and his face was inflamed. Several policemen, and some of Tom's workers, rushed toward the running man who held the bottle aloft. Before they could stop him he had stepped between two of the gliders, had taken the cork out of the bottle and was endeavoring to pour its contents over one of the couplers. As Tom drew near, he caught a peculiar odor.

"Acid!" he exclaimed. "He's trying to burn up my train!"

"Let me go! Let me go!" screamed Daniel, who now seemed out of his senses. "I must christen the new sky train—Tom Swift's great sky train! They christen a new ship with wine! Let me christen Tom Swift's sky train with this!" He shook the bottle.

Some of the officers who had caught hold of Daniel seemed doubtful as to what they ought to do in the face of this declaration. The man might actually be taking part in the starting ceremonies. But Tom Swift realized the danger.

"Hold that man!" he cried. "Look out!" he added, as he saw Daniel shaking the bottle of acid.

The authoritative tone of Tom's voice decided the police. They closed in around Daniel, but not until he was very close to a place between the rear glider and the one next to it. Then, in the scuffle the bottle fell to the ground and shattered. A yellow liquid was spread about. A pungent odor filled the air.

"Look out!" cried Tom. "If any of that gets on you it will burn you to the bone!"

Suddenly Daniel broke away from his captors and leaped for Tom Swift, the light of madness shining in his eyes.

## CHAPTER XXII

### READY TO GO

DANIEL might have reached Tom, with what results can only be guessed at, but faithful Koku was on the alert. The giant had not left the vicinity of the sky train since it had been made up. Tom had charged him with its safety and Koku was right there. Before the infuriated man could reach Tom, Koku fairly leaped on him, bore him to the earth and then, rising, held him aloft as he had before.

“Now I bust you!” cried the giant savagely.

The milling, shouting crowd held its breath in horror. Tom guessed what might happen and, in a voice which Koku never disobeyed, and in the giant’s own language, so there might be no mistake, the young inventor shouted:

“Put him down, Koku, and gently! Don’t hurt him!”

Koku, showing disappointment over the revenge out of which he felt he was being cheated, obeyed. He set Daniel upon his feet but did not let go his hold of him.

Even then, forgetting the terrible death he had so narrowly escaped, Daniel continued to struggle, but uselessly. He yelled in his rage:

“You’ve ruined me and mine, Tom Swift! You’ve reduced me to poverty until I haven’t even money enough to save my boy from going blind! You tried to kill my boy! You want to ruin me! I’ll have my revenge! I—I——”

Then his spasm of rage overcame him and he sank senseless to the earth.

“Take him away,” Tom said, gently. “Poor fellow! His brain must have cracked under his troubles, though they were none of my making. You’d better have a doctor see to him,” he said to the sergeant in charge of the police squad. “Have him well cared for at my expense and I’ll see to him when I get back. But guard him!”

“Indeed we’ll do that, Mr. Swift,” said the officer.

“And look out for that pool of acid!” cried Tom, as he saw some of the crowd dangerously near it. “Here, Koku, get a shovel and cover it with earth. Don’t let a drop get on you, though!”

“Indeed it is powerful stuff, Mr. Swift,” said a policeman. “Look what it did to my shoe!” He held up his shoe which he had taken off. Inadvertently he had gone too near the acid pool in the excitement and the heavy leather sole

was almost eaten off. "As soon as I heard you yell it was acid, and I saw some on my shoe, I took it off, Mr. Swift. I used to work in a chemical plant and I know what acid can do."

"You did right," Tom said. "Jove, but this makes a hectic start for my sky train!" he went on to Ned, as the now inert form of Daniel was carried away. Then Tom went to where he had seen the man open the bottle of acid between two of the gliders. A look showed that some of the powerful fluid had been dropped on the two couplers. Already the metal parts were pitted.

"I'm sorry, ladies and gentlemen," Tom said to those in the last two gliders, "but I'll have to ask you to change cars, so to speak. It will not be safe to take those up. The couplings have been weakened by the acid spilled on them by this unfortunate man. I'll soon have two new gliders here. This will be only a short delay."

The damaged gliders were towed away, two others were put in their places, a test was made of the dual double magnetic control and at last Tom stood in the doorway of the cabin of the *Eagle*.

"Let's go!" he cried, signalling that all was in order.

He closed and fastened the cabin door and, trying to calm himself after the half hour of strenuous excitement, sat down beside his wife.

"You aren't hurt, are you?" asked Mary.

"Not in the least. No one is harmed, luckily. That was terrible stuff Daniel had."

"What made him act that way?"

"I don't know, Mary. I'll go into that later, just now I'm going to run my sky train!"

The motors of the *Eagle* roared, the big plane shot up on a slant pulling the three gliders after her. Up and up the sky train soared, amid the cheers of the crowds on the ground. It was a perfect start.

Tom now greeted his guests, some of whom he had not had a chance to speak with up to this time. For some it was their initial trip in the air and they marveled first at the wonder of it and then at the seeming simplicity. But back of all that seeming simplicity lay hard work on the part of Tom Swift.

Rapidly the sky train gained speed until it was shooting along at a great height headed for Portboro where the first glider was to let down and the first one picked up, that is, if a "tail" glider can be said to be "first."

To his newspaper and newsreel guests Tom explained as much of the workings and mechanisms of his latest invention as was necessary. All eagerly awaited the first real test—that of dropping a full-sized glider and picking one up. But of course Tom felt sure, by previous tests on a less elaborate scale, that the favorable chances were with him.

"We're sighting Portboro, Mr. Swift!" one of the pilots reported in what

seemed a short time after leaving the Shopton airport.

"Say, that's a record run, isn't it?" asked one of the reporters.

"No, I've made better time than that in some of my other machines," Tom modestly answered. "We're not trying for a speed record now; merely giving a demonstration of the sky train's ability to drop off and pick up separate glider units in full flight."

A little later they were over the first of the test cities, and Tom called to the pilot:

"Stand by for a glider landing!"

"Right!" came the acknowledgment. And then, ascertaining by observation that the other plane and glider were waiting to come up, the young inventor wirelessed down:

"Come on up!"

It was as simple as that!

Signalling to the pilot in the rear glider to trip his magnetic switch, Tom Swift did the same in the *Eagle* cabin. A moment later the rear glider went down as easily as a bird with her load of passengers.

There was a murmur of delighted surprise from the newspaper men and guests. Then, like another bird leaving earth, the plane with the glider to be attached started up. Meanwhile the *Eagle*, pulling the sky train, kept on going. Nor did she slacken speed.

"He'll never be able to hook on going this fast," said one man.

"Bless my cocoanut pie! You don't know Tom Swift!" exclaimed the delighted and enthusiastic Mr. Damon.

Then, while the passengers in the train watched, through observation windows in various places, in either the *Eagle* or the towed gliders, the plane with the glider from earth shot rapidly up, hovered ahead of and above the train until it was just in the right position.

For a moment Tom felt just a bit apprehensive. Suppose it should fail with this critical audience?

But it didn't fail. The pilot of the small plane knew just what to do. There was a slight jar, and Tom knew, an instant later, by the glowing of his tell-tale lights, that proper contact had been made; that the glider from earth was coupled on and that the magnetic control would hold it there until, by dual action of himself and the pilot, the glider would be released.

"By Jove, he's done it!" yelled one newspaper man who rather ostentatiously carried a big cane.

"She's on! She's on!" cried the delighted Ned Newton, capering about. "She's on! Oh, boy!"

No less enthusiastic were all the others in the *Eagle*, those on the ground who had witnessed the successful coupling, and those in the glider itself and

those just ahead of it.

On sped the sky train. It was a longer run to Kenville, but it was made in almost record time, and there the glider taken up at Portboro was released and another taken on. This contact was not quite as successful as the first, a nasty cross wind interfering somewhat with the attempt. But at the second try the couplings locked and the train, never slackening speed, throbbed on its way.

"Well, I don't want to be too sure," Tom said to Ned, "but I guess this clinches it!"

"I'm sure it does!" was the answer.

After that Tom gave his party a trip through, under and over the clouds in the sky train, passing about a hundred miles beyond Kenville. Then he turned about, dropped a glider there, picked up another and repeated the stunt at Portboro. There wasn't a hitch in the whole proceeding, except the necessity for two trials in taking on the first glider at Kenville.

"And now," said Tom a bit wearily when it was all over, "I guess we'll head for home, Ned."

"And get ready for a try at the prize!" Ned exclaimed. "Tom, I didn't tell you before, but we're pretty near close to being 'busted,' as the boys say."

"You mean we need more cash?"

"Yes, and I don't want to ask for another loan. But if you can win this prize  
—"

"Don't worry, Ned, I'm going to win it," said Tom, quietly.

"If Daniel, or some other crazy chap, doesn't put the kibosh on you."

"Yes, I've got to be careful of that," Tom admitted. "But I think Daniel is out of the way for good. Poor fellow! I must do something about his boy!"

Tom found it hard work, after a successful landing at Shopton, to get away from the admiring throng. He was pressed by the reporters for statements, and had to stand for a lot of pictures being taken. But at last the *Eagle* was run in the hangar and Tom was able to get a little quiet. It was then Mary, with shining eyes, came to him.

"I didn't want to tell you in front of all the others," she murmured, "but, oh, Tom! I'm so proud of you!"

One of the first things Tom Swift did, after making arrangements for having his gliders and the *Eagle* inspected by his mechanics to see that no flaws had developed on the trip, was to inquire for Daniel. The man had come out of his faint, but was in such a state that he had to be taken to a hospital.

"Then I've got to go see his wife," said Tom to Mary.

"I'll go with you," she offered. "Maybe Mrs. Daniel will let us arrange to have Davy's eyes mended, now that her poor husband is out of the way."

They found Davy's mother in tears, but she greeted them quietly.

"I'm so sorry all this happened, Mrs. Daniel," began Tom. She stopped him with an odd gesture.

"You may as well know the truth," she said. "Our name isn't *Daniel*—it's *Davis*. My husband is *Daniel Davis*, formerly head of the Davis Aero and Airline Corporation."

"Why," cried Tom in surprise, "I know that firm, or used to! Your husband came to me with a recommendation from them."

"Yes," said the woman in a low voice, as she held little Davy close to her. "Daniel wrote that recommendation himself—for himself. Oh, it has been hard—so hard!" she sighed. "He didn't know what to do when you ruined his business, Mr. Swift!"

"When I ruined his business?" cried Tom in surprise. "What do you mean?"

"Yes," she answered, "you did. Oh, I'm not accusing you of doing it on *purpose*," she hastily added. "It was the way of the world and trade, I suppose. My husband used to have a nice little business making airplane parts. But a year ago he had to give up. He said he could not compete with you. Everything soon went. We became very poor—too poor, in fact, to have Davy's eyes looked after. Then my husband got the desperate idea of changing his name, writing a recommendation from himself for himself, and applying for work at your plant."

"I took him on—he was a good workman," said Tom. "But he has not repaid me very kindly."

"I know he hasn't, Mr. Swift. But I hope you will forgive him. He was out of his mind, I think."

"He must have been when he tried that acid trick!"

"I heard about that," wearily said Mrs. Davis. "If I had known in time I would have warned you. But that wasn't the first time Daniel tried to injure your property, though I only knew of it last night. Then he confessed to me that he tripped the couplings once or twice. I don't know the mechanical details, but that's what he called it—tripping couplers."

"So that's what made my gliders fall!" exclaimed Tom. "My suspicions were well founded. Did he do anything else?"

"Yes," confessed Mrs. Davis, "though it shames me to have to tell you. In some way my husband became involved with Lester Willam, of the bank here. Mr. Willam knew who my husband was and, I suspect, he hired him to try and keep you from perfecting your sky train, Mr. Swift. There was something about a telephone message, mentioning a failure, when you went to see about a loan, wasn't there?"

"So that's how Willam knew," Tom mused. "Daniel telephoned the bad news to him while I was at the golf club. But why is Willam so against me, I

wonder?"

"Can't you guess?" asked Mrs. Davis.

"No."

"Mr. Willam, so Daniel told me," she went on, "is part owner of the Acton plant which also makes airplanes and dirigibles. I suppose the success of their invention would be affected by yours, Mr. Swift, so he tried to keep you from going on by refusing money. I don't know that he urged my husband on actually to *damage* your sky train, Mr. Swift, but you can inquire about that."

"I shall," said Tom sternly. "I wouldn't put it past Willam to do a thing like that. But I am going to forgive and forget as far as your husband is concerned, Mrs. Daniel—I mean Davis. I can realize what he went through—losing his business. But I want to say I had no idea, in going into the making of airplane parts, as I did, that I was killing off a small competitor! I wouldn't do that for the world! Why didn't your husband ask me to buy him out at a fair price?"

"Too proud, I suppose," was the weary answer.

"Well, I'd have done it, and taken him on, too," said Tom. "It isn't too late yet. There were some things the Davis concern made that we haven't been able successfully to duplicate. I think I can promise you happier times from now on, Mrs. Davis. The doctors say your husband will soon recover from this—indisposition. And then——"

"Then," broke in Mary, "I am going to have something to say about this little fellow's eyes; mayn't I?" she asked the weeping mother as she took Davy into her arms.

Mrs. Davis did not answer, but she clasped Mary's hand in a way that said more than words.

"Well," said Tom with a shake of his shoulders when he and his wife had left, "I'm glad that's over. Poor Daniel Davis! What happened to him explains a lot. But it doesn't explain Willam's actions! I've got it in for that bird! I'll show him!"

"Oh, Tom, you won't fight, will you?" Mary clasped his arm.

"I'll fight him with my sky train!" cried Tom Swift. "I'll beat him and his Acton concern! I'll fly out to the coast and take that prize! That will be the best way of getting square with such a man—hit him in his softest place—his *pocketbook*! Mary, a lot of things are going to happen soon!"

They began the very next day. Never had the Swift plant been busier.

After making arrangements to have Daniel Davis cared for, and starting negotiations looking to having his son's eyes operated on, Tom bent all his energies to getting his sky train in shape for a cross-country flight, to drop off gliders at Chicago and Denver, and pick up "cars" at the same cities. He had word from the World Exposition managers that the *Silver Cloud* had arrived, and the advent of his sky train was eagerly awaited.

Then, two weeks after the successful "dress rehearsal," Tom Swift, early one morning, stood once more in the cabin of the *Eagle*. This time his wife was not going with him, but Mr. Damon was, likewise Ned, and several assistants, including Koku.

"Koku will be an exhibit all by himself," said Ned, laughing.

The gliders and planes had been sent to Chicago and Denver and waited at the airports of those cities. The sky train, with a string of gliders, and many passengers, many of whom paid for the ride, was all ready to start on the prize trip. Tom looked out of the door, waved to Mary and his father, called a cheerful word to faithful, black Eradicate and then, after a quick glance at the registering instruments, and at the lights indicating that all the couplers were in order, he closed the portal, gave the signal to the *Eagle* pilots and called:

"We're off for the coast!"

## CHAPTER XXIII

### THE RACE

THOUGH the *Eagle* roared and throbbed her way aloft, pulling after her five loaded gliders, in much the same fashion as had marked the previous experimental flights, yet to Tom Swift, and many others, this trip was vastly different. It was as much different as a practice football game differs from the 'varsity clash between two big colleges. So much depended on the successful outcome of the trip of Tom Swift's sky train to the coast.

But it was without a sign of the anxiety within him that the young inventor, after closing the cabin door and giving the signal to start, walked over to where Ned stood, with Mr. Jackson, regarding the gauges and other gadgets on the instrument board, and said:

"Well, we're headed there at last."

"For the World Exposition, you mean?" inquired Ned. "Yes, Tom, I never thought I'd see this day, after we had so many failures with the couplers."

"I was a bit discouraged myself at times," Tom remarked. "Especially after so many things happened. But now that Daniel, or, rather, Davis, has given up his ill-directed activities and I know Willam's little game, I fancy we shall have clear sailing—barring, of course, the chances for accidents."

"And you hope to win that twenty-five thousand dollar prize, I suppose, Tom?" asked Ned.

"I sure do!"

"Well," remarked the financial manager, dryly, "all I can say is that we'll need the money. But there's one element of chance you seem to have overlooked, Tom."

"What's that?"

"The possibility that the Acton people may beat you with their Dirigible Flyer. They're also trying for the prize."

"I know, but I think I can beat them."

"You could if you would give up your plan to hitch gliders on at Chicago and Denver," and Ned spoke seriously. "It's all right for you to drop the two gliders over those cities, Tom, as you planned. But to pick up gliders may mean a delay, and too much of a delay might lose you the prize. Why won't you be satisfied just to drop the two gliders? Don't pick any up."

This had been a mooted point between Tom and Ned for some days. The prize rules for a race between the two travelers in cloudland called for the dropping of two or more gliders, balloon cars or small dirigible units, as the contestants elected, and according to the construction of the particular sky train. Nothing was said about picking up other gliders, or units, and it was not made a condition of the contest. Consequently Tom could have omitted this. He knew the Acton people were not going to do it. In fact, they were not equipped to.

"No, Ned," spoke Tom, with a gesture of finality. "I'm going to pick up my gliders as I said I would. I don't care whether the Acton people do or not. And it won't delay us any. I'll keep the *Eagle* flying along. It will be up to the pilots of the lifting planes to hook their gliders on."

"Well, old man, it's your show, not mine," Ned remarked. "But we sure will need that twenty-five thousand dollars!"

"And we'll get it!" cried Tom. "It's a matter of principle with me, Ned. All along I have said I was going to make a sky train as nearly like a land train as was possible. One of the features is the ability of my sky train to drop gliders and pick up others, as a land train drops off cars and couples on others. If I left out half of what I set out to do I wouldn't be playing fair with myself or the public."

"Well, Tom, I guess you'll have to go through with it then," said his chum. "We'll hope for the best."

The sky train was now up about eight thousand feet and roaring along at a fast clip. It could go higher, and it could proceed lower, according to the weather conditions the pilots in the *Eagle* encountered. Tom had secured advance reports of the weather prevailing across the United States, and, save for a threat of possible storms over the Rockies, all were favorable.

After seeing that Mr. Damon and his other guests were comfortable in their quarters aboard the *Eagle*, Tom got into telephone communication with the pilots of the following gliders and learned that in each unit everything was satisfactory. He gave orders that the coupling mechanism was to be inspected frequently to catch any possible impending breaks or other defects.

As the flight to Chicago would take only a few hours, when the first glider would be dropped off, there were no arrangements in that "car" for sleeping accommodations. A lunch was provided, however.

The *Eagle* had several sleeping berths and contained a well-fitted kitchen, with sufficient food for some time. Though Tom expected to make the trip to San Francisco in about fifteen hours, he realized there might be delays, on account of storms, and that his passengers would have to sleep and eat. So all this was provided for. The same thing was done in the gliders that would make the entire trip—berths and food were aboard them.

"Well, we're hitting it up," Tom remarked as he looked at a speed gauge which registered close to two hundred miles per hour.

"Sure are flying," agreed Ned.

"Bless my feather pillows, Tom!" exclaimed Mr. Damon. "I hope nothing happens at this terrific speed."

"The same to you!" Tom answered with a smile. "But don't worry. You have gone faster than this with me before, Mr. Damon, and you didn't mind it. In fact if you hadn't looked at the gauge you wouldn't know you were going as fast as you have often traveled in a railroad train, would you?"

"No, I guess I wouldn't," admitted the odd man. High up in the air as they were, the passengers could really get no adequate idea of their terrific speed. And the only motion noticeable was a slight dip or rise, now and then, and the distant sound of throbbing and roaring from the powerful motors of the *Eagle*. In the big airplane cabin, and in the cabins of the big gliders, the passengers were as comfortable as in a Pullman car.

Several newspaper men were in the *Eagle*, representatives of the big news-gathering associations, and Tom permitted them to wireless back a running story of the trip, to give them something to write about. When they had been up a few hours, Tom ordered luncheon served in the airplane as well as in the gliders.

"And I never heard a sweeter word than that," remarked Ned as he went to a small table, "I sure am hungry!"

The start had been made about 4 o'clock in the morning, when it was hardly light, in fact, for Tom wanted to get to San Francisco before dark, which he could easily do if he made the distance in about fifteen hours as he calculated. It doesn't get dark as early on the Pacific coast as it does on the Atlantic, due, of course, to the apparent western course of the sun.

It was not long after lunch that the telephone indicator showed the pilots in the *Eagle* wished to communicate with Tom. He picked up the instrument and heard Turtan say:

"Chicago is just ahead, Mr. Swift!"

"Good! We're half an hour ahead of our schedule. Well, cross your fingers for luck, old man. Here comes our first test!" Tom referred to the dropping and picking up of a glider. Then he telephoned back to the pilot of the tail "car," advising him that Chicago was in sight and suggesting that he stand by for orders.

There was a little thrill of excitement aboard the sky train when it became known that the first attempt of its kind (as far as the finished train was concerned), was about to be made. Tom was not a little anxious as they came over the flying field and saw the plane and waiting glider down below. He might have slackened the speed of the *Eagle* for this trial, but he would not.

"If the sky train is going to be any good at all," he decided, "it must not be favored. We'll drop the glider and pick one up at full speed!" That was like Tom Swift.

He wirelessed to the waiting plane below:

"Stand by to come up!"

"Right!" the pilot answered.

A moment later the tail glider was cut off, and with a roar the motors of the waiting plane below took her up with the glider of passengers at her tail. The *Eagle* soared on with the four units of her train. Down below there was a wild demonstration when it was seen how successful the first part of the experiment had been. But of course Tom and his friends could not hear this. They were too high up.

Nearer and nearer came the auxiliary plane and glider. Now it was on a level with the *Eagle* and her gliders—now above, and, a moment later, ahead. Those small planes surely were speedy!

Now began that careful jockeying necessary to hitch the new No. 5 glider to No. 4. Both pilots were on their mettle. Anxiously Tom Swift watched from the observation window in the cabin roof. He saw the small plane synchronize her speed until it was exactly the same as that of the *Eagle*. Then it dipped a little to bring the glider into position. There was a moment of hesitation—a slight bump and jar, felt through the entire sky train. Then Ned cried:

"There she goes!"

Like a sparrow darting off the back of a hawk the auxiliary plane left her place above the *Eagle* and flew down to the ground.

"The glider is coupled, ladies and gentlemen," Tom announced to his guests in the cabin.

"And at nearly two hundred miles an hour speed!" exclaimed one of the newspaper men. "Boy, this is some story!" And he scribbled a message to his paper.

On sped Tom Swift's sky train. The first of the two attempts to drop off and take on a "car" had been successful. The next trial would be over Denver, some hours away.

Carefully watching every indicating instrument and noting the consumption of gas and oil from the gauges in the cabin, Tom Swift left nothing out of his calculations that would make for success. He had enough fuel aboard for the entire flight, and in the glider next to the *Eagle* was a big reserve tank of gasoline and oil.

"Well, if this keeps up," Ned remarked, "we'll soon hit Denver, and after we take on our glider there there'll be nothing between us and Frisco but success."

"Let's hope so," murmured Tom.

A little later Lacter, in the *Eagle*, reported:

“Approaching Denver, Mr. Swift!”

“Good! Watch everything now!”

The tail glider, which had been picked up at Chicago, was now to be released and another picked up at the Denver airport. Later on Tom planned to circle his sky train several times around a flying field, so that, if necessary, all the gliders towed by the *Eagle* could be transposed, as a switching freight train picks up and takes on cars, not only at its rear end but at front and in the middle. But that was something for the future.

“Cut off!” cried Tom, manipulating the double dual magnetic switch. The pilot in the tail glider did the same. That “car” went down as lightly as a feather. Up came the other glider, and in less time than the coupling had been made before, was hooked on to the rear of the sky train. Never slackening speed, on flew the *Eagle*.

“Hurray!” cried the enthusiastic Ned. “And now for the last lap of the race! Tom, you’re going to win! The Acton people aren’t in it for a minute!”

Tom did not answer. He had risen from his seat near the instrument board and was looking back, and off to the left at some dark speck in the sky.

“What is it?” asked Ned, catching the direction of his chum’s gaze.

“I’m not sure,” Tom replied, quietly, “but I think it’s our rival. I heard they were going to start today.”

“You mean the Acton concern?”

“Yes. That may be merely another big airplane sent out to trail us by some newspaper, or it may be a dirigible. But I think it’s the Acton outfit. Hand me the glasses, Ned.”

Focusing these to his eyes, Tom Swift took a long observation of the speck in the sky. It was momentarily growing larger. Then, suddenly, Tom handed the glasses to Ned, saying:

“It’s the Dirigible Flyer all right. We’re going to have a race for that prize!”

Quickly the word was passed around the cabin of the *Eagle*.

“A race! A race!”

On roared the sky train, and after it came the big bulk of the Acton dirigible, with several smaller balloon-like units in her wake.

## CHAPTER XXIV

### THROUGH STORM PERILS

"THIS is too bad, Tom," remarked Ned.

"What is?"

"Having these Acton birds flying after you this way. I'm sure they never thought of building a sky train to rival yours until they heard what you were doing. And then, I'll wager, that hard-boiled egg of a Lester Willam put them up to it. I'm going to take our account out of his bank—if we've any account left after this is over. Golly, but it's tough!"

"Nonsense, Ned," and Tom almost laughed. "You wouldn't want me to have a walkover for that prize, would you? Get it without competition?"

"Sure I would! We need that money and need it bad, Tom! I'm telling you, boy!"

"Well, we'll get it!" Tom predicted. But he did not have quite the confidence he voiced as he saw how speedily the Dirigible Flyer was coming along.

Tom called through the telephone to his airplane pilots:

"See if you can speed her up a little."

"Right, Mr. Swift!" back came the answer. Almost at once the progress of the sky train was greater. Tom knew, however, that he was close to the limit. It was one thing to force a single aircraft to the utmost, but this could not be done when it was pulling more or less loose units in the shape of gliders. If a coupling broke, and a glider came loose, it would not necessarily mean disaster, for the glider could be safely piloted to earth. But it would spoil Tom Swift's reputation and indicate that his sky train could not be relied upon. So he had to stop speeding the *Eagle* short of the limit of which she was capable.

But if Tom hoped to shake off the Dirigible Flyer by going faster he was disappointed. For those in charge of the Acton craft let out a few more propeller revolutions, and the big bulk came on fast. It had been travelling a different course from that of the sky train, which accounted for it not having been sighted before. But now, since Tom was laying a direct route for San Francisco, it behooved the Dirigible Flyer to proceed along the same line to cut down distance.

So close was the Dirigible Flyer now that she was in plain view to all

aboard the *Eagle* and the greatest of excitement over the race was manifested. Those sportingly inclined began to lay wagers on the result, and Mr. Damon blessed everything he could think of to bring Tom Swift luck.

"They imagine they have a sky train," Ned remarked, pointing to the rival outfit, "but they don't drop gliders and pick 'em up as we do. They ought to be handicapped in this race."

"Look!" some one suddenly exclaimed, pointing. "She's had an accident! Part of the dirigible has broken off!"

"No," said Tom, "they are only releasing one of their units. They must do that to comply with the rules."

"Why don't they pick one up?" asked Ned.

"I guess the answer to that is they can't," said Tom.

From the tail of the Dirigible Flyer a sort of balloon car went drifting lazily down to the ground. It could probably land as safely as could one of Tom's gliders. Otherwise there was no comparison.

"Well, it's going to be a race all right," observed Tom as he noted that the other craft was flying about two miles from him, at about the same height. It was, also, going at about the same speed, for they were almost in line, as nearly as could be told.

"And may the best sky train win!" exclaimed Ned, fervently. "That's us!"

The hours were passing. San Francisco lay not far ahead, computed in air travel terms. But the most dangerous part of the journey lay before each contestant. This was the region over the Rockies, with the sudden, hidden storms, clouds, fogs and treacherous air currents. Tom was more anxious about this part of the trip than any other.

It was just after Ned had observed the Dirigible Flyer through the glasses, noting with some alarm that she seemed to be a little ahead, when the telephone indicator from the *Eagle* motor room showed that Tom was wanted.

"What is it, Lacter?" he asked.

"The Rockies are just ahead, Mr. Swift. And I'm afraid we're going to run into a storm!"

"Well," said Tom, more easily than he felt, "I guess the only thing to do is to run into it and hope for the best. Are the motors running all right?"

"Never better."

"Then hold about this speed and go up a bit. We may get above the storm."

"Right!"

But it was soon evident, even though the *Eagle* began to pull her gliders higher, that there was no escaping the storm. In a short time the sky train was above the first of the Rocky range and in the midst of a violent outburst. First came a great blast of wind, careening the *Eagle* and her following gliders to such an extent that many of the passengers showed signs of fear. But Tom

calmed them and in a short time the automatic stabilizer gyroscope had brought all the units of the train to even keels. On they flew.

Suddenly the sky grew dark. There was the rumble cracking of thunder so loud as to be heard in the *Eagle* cabin above the throb of the motors. Then the blackness of a premature night was glaringly split by vivid lightning flashes. All at once the *Eagle* began to go down. Tom Swift leaped away from the cabin instrument board.

"What's the matter?" asked Ned in a low, anxious voice.

"Nothing, I hope," answered Tom. "But I'm going forward to find out. I'm going to take charge of the *Eagle* myself. Do you see anything of the Dirigible Flyer, Ned?"

Ned looked out through the lightning illuminated blackness of the storm, across to where the Acton craft had last been sighted. A vivid flash showed her outlined against tossing wind-torn and rain-lashed clouds. And then Ned cried:

"Tom, she's ahead of us!"

"She won't be long!" exclaimed Tom Swift as, with a grim look on his face he passed forward through the door of the cabin communicating with the motor room. "I'm going to beat her, storm or no storm!"

The first disconcerting dip of the *Eagle* had been checked, and all in the sky train breathed easier now. And it was evident, soon after Tom Swift took the piloting of his train into his own hands, that the speed had increased.

On through the perils of the storm rushed and roared the *Eagle*, pulling after her the glider units. If one of them broke loose now, there might, indeed, be a disaster. For it would test a pilot's skill to the utmost to land a glider amid the mountain peaks in such an outburst of the elements as now raged.

But Tom Swift had built his sky train well. The couplers were the weakest link in it, but they had been constructed to stand an immense strain. Nevertheless this was a supreme test, and Tom knew that if he could bring the outfit whole and undamaged through such peril as this that success was assured for future trips.

"I'm glad you're going to take charge, Mr. Swift," remarked Lacter as the young inventor went to the wheel.

"Same here!" echoed Turtan. "This sure is fierce! Worst storm I ever rode through."

"We aren't through, yet," said Tom grimly.

Then began a battle the like of which Tom Swift had never before experienced. It needed all his skill to pilot the *Eagle* along over the mountain peaks, through the driving rain and, at times, actually through storm clouds, charged with lightning bolts which broke and cracked all around the sky train. And through it all fell the drenching, whipping rain.

Back in the cabin some timid souls openly expressed their fears. One man

insisted that Tom Swift be communicated with and the train turned back.

"We are in danger of our lives!" he cried. "I demand to be set down on the ground where it's safe!" His panic was affecting the others until Koku, sensing what was wrong, came and stood towering over the frightened coward and roared at him,

"Now you sit down on yourself an' I hold yor hand! Den you not be 'fraid anny more!"

In spite of the peril and the tenseness of the situation, the others in the cabin could but laugh at Koku's gentle, sarcastic remark. And the coward slunk off by himself, nursing his fears in solitude.

Meanwhile, even with the help of Lacter and Turtan, Tom Swift in the motor compartment of the *Eagle* was having all he could do to hold the craft on her course. At times the sky train was forced up, and again down until, on one of these dips, it was feared she would crash upon a mountain top, seen for an awful moment in the lightning glare. But the powerful motors pulled her up and on and away they roared. By another lightning flash Tom suddenly had a view of the rival dirigible train. It was within half a mile of him, and so far ahead, now, that Tom only glimpsed the tail unit.

"Looks as if they were going to beat me!" he grimly murmured as his hands grasped, more firmly, the steering wheel.

## CHAPTER XXV

### PART AT LAST

ALMOST as suddenly as it had come up, the terrible storm began to subside. What had really happened was that the sky train ran into a cloudburst and ran out of it again. Probably the cyclonic blast remained centred over that particular part of the Rockies.

But toward the end, when at the outer edge of the raging storm, the *Eagle* was so suddenly whirled around and sideways that, for one awful moment, Tom feared she would tear loose from all the gliders. He looked at the stress and strain indicators, which were in the motor compartment and which showed the state of every coupler. One, between the second and third gliders seemed about to crack, but it held, and then, suddenly, the worst was over. But it took all Tom Swift's skill to pilot his sky train safely out.

Emerging from the black clouds into the sunshine of a calm region west of the Rockies was a great surprise and relief to all on board.

"It's like coming out of a terrible night into a glorious morning, Mr. Swift," said one man, rather poetically inclined.

"Well, it isn't exactly morning," Tom remarked when he had turned the control of the *Eagle* over to his pilots again and had returned to the cabin. "For this is afternoon and, if we have luck, we ought, soon, to be in port."

"You mean San Francisco?" asked a reporter.

"Yes."

"Good news! I'll wire my paper we're coming," for he was on one of the Golden Gate papers.

"And ask them to let us know if the Dirigible Flyer is in," suggested Tom. "I had a glimpse of her through the storm. She was ahead of us and——"

"Ahead of us?" gasped Ned.

"Yes," Tom assented. "I'm afraid we're beaten, old man!"

"Whew!" There was a worried look on Ned's face as he whistled. He knew, better than Tom, how desperate were their finances.

"Well, we can't have everything," said Tom with half a smile. "At least my sky train has proved it can go through a terrible storm. We have also proved that we can drop gliders and pick them up at full speed and when I form the stock company to exploit my train the shares will go like hot cakes. We'll have

plenty of money after a while, Ned."

"We need it now, Tom. That prize——" But Ned could not go on. He was too downhearted.

Several of the news men sent dispatches to their papers telling of the approach of the sky train toward the San Francisco airport. And the one Tom had asked to obtain, if possible, some word of the Dirigible Flyer, said:

"She hasn't landed nor been heard of yet!"

"Wow!" cried Ned, his spirits suddenly reviving.

"Then we still have a chance!" exclaimed Tom, scanning the horizon for a sight of his rival. "Full speed ahead!" he ordered the pilots, and the sky train roared on faster than ever.

It was soon after this, toward late afternoon, and about fifteen hours from the time of leaving Shopton, that through the motor room telephone came the welcome announcement:

"San Francisco just ahead, Mr. Swift!"

"That's good news. Now I plan to let each glider off before we go down. So watch everything!"

"O.K.!"

A little later the sky train was circling the San Francisco landing field, just outside the ground of the World Exposition. Word of the approach of the sensational sky flyer had been received and an immense crowd, that taxed the police to the utmost, had gathered.

"Drop the tail glider!" Tom ordered, letting Mr. Jackson take charge of the magnetic coupler controls, while he and Ned looked down on the field below.

A moment later the first glider went gracefully down. It was greeted with a roar of cheers. In turn the other four made successful landings and then, after a few more circles of the field the *Eagle* was landed. As it slowly taxied to a stop the crowd broke through the police lines and fairly swarmed over and into the craft. Some one recognized Tom Swift and, a moment later, he was fairly torn from the cabin and triumphantly carried on the shoulders of many men to the hangar office of the World Exposition management.

"Here you are, Mr. Swift. Right into this mike!" pleaded one man whose clothes were nearly torn off him in his fight to get through the crowd to hold the microphone in front of the young inventor. "Say just a few words—this is the Universal Broadcaster Company—the whole world is on the hook-up. Tell them how you succeeded."

"But have I succeeded?" gasped Tom, trying to compose himself after some rather enthusiastic but rough handling. "What about the Dirigible Flyer? Did I beat her?"

"Did you *beat* her? I should say you *did!*" cried an Exposition official. "You win the prize, Mr. Swift!"

"Oh, boy! Somebody hold me!" murmured Ned.

"What became of the dirigible?" asked Tom. He was anxious lest something serious might have happened—perhaps lives might have been lost. But he was soon reassured.

"The Dirigible Flyer was forced down to a safe landing soon after crossing the Rockies, Mr. Swift," an official said. "Nobody hurt but she doesn't win the twenty-five thousand dollars. You do! The check is waiting for you."

"Oh, sweet words!" murmured Ned. "Where can I get an ice cream soda?"

By this time Tom was speaking into the microphone, telling a waiting world, briefly, what had happened. And then, while the first passengers ever to cross the continent in a sky train were dispersing to their destinations, and when newspapers all over the land were printing accounts of the epochal journey, Tom managed to get away to have a long distance telephone talk with his wife.

"And tell dad," he begged Mary, after greeting her and narrating his successful fight through the storm, "that everything is fine."

"I will, Tom. When are you coming home?"

"As soon as I can, after putting the sky train on exhibition."

That World Exposition was a sensation. Never had so many craft of the air been shown. Eventually the Dirigible Flyer came on and was put on view. Her pilots were sportsmen enough to openly congratulate Tom Swift. But aside from the *Silver Cloud* the centre of all attraction was Tom Swift's sky train.

Even before the exposition was formally opened, the success of the venture became known and Tom and Ned received many orders for duplicate outfits, while the sale of the world rights was put at a sum sufficient to clear off all the Swift plant debts and leave a big margin.

"Well, my worries are over now," Ned remarked when, after spending a week in San Francisco, during which Tom had been honored to the limit. "We've got all the cash we need."

"And most of my worries are over, now that my sky train is a success," said Tom.

"Why, what other worries have you?" asked Ned.

"I want to mend little Davy's eyes," was the answer.

Leaving his sky train on exhibition, in charge of Ned and Mr. Jackson, Tom took a plane for Shopton, arriving safely after an uneventful trip. On the way he stopped at Denver and Chicago to make arrangements about having stations located there for his sky train, as he was now planning regular trans-continental trips.

"Oh, Tom, you're just wonderful!" murmured Mary as she greeted him.

"So are you!" he answered, softly. "And what about little Davy?"

"I'm sure everything is going to be all right there. Mr. Davis is much

better, and so sorry and ashamed for what he tried to do to you, Tom. But he really doesn't remember much about it. I think he must have been sort of insane from the very first—I mean soon after he lost his business, knew his boy was going blind and came to work for you."

"Probably," Tom agreed. "It was then that Willam took advantage of him, using him for his own ends to hamper me so the Acton outfit might get ahead. But I beat 'em, just as I said I would!"

Later Tom saw Daniel Davis, extending his forgiveness and got from the man a full account of what had happened.

Davis admitted that it was he who had tried to break in the *Eagle* hangar the night Koku summoned Tom. Davis had also been the rider in the car that nearly collided with Tom's. The man was hurrying to see Willam about hampering Tom's work. And it was Davis who had tampered with the couplings to cause the gliders to fall twice. He had saved himself once with the parachute. And the snarling refusal of Davis to first accept Tom's aid in saving Davy's eyes was because the unfortunate man's conscience was troubling him for what he had done against the young inventor.

"I never knew I was crowding you to the wall, Davis, in going into the manufacture of aircraft accessories," Tom said. "But we'll fix all that up. What is more important, will you let me help you in financing the operation on your boy's eyes?"

"Gladly, Mr. Swift! Oh, what a fool I've been!"

"Forget that. And will you take your old job back?"

"If you'll give it to me?"

"It's waiting for you," said Tom, simply. "And now we'll go see about this operation."

It was a delicate one, and risky, but the skillful surgeon performed it successfully and now Davy never need fear going blind.

"Oh, I am so happy!" murmured Mrs. Davis.

"So am I!" said Mary.

Mr. and Mrs. Davis tried to thank Tom Swift, but he pretended to be too busy to listen.

"I've got to go down to the bank to make a deposit," he said.

As Tom was handing the checks in at the receiving teller's window, the door of the president's private office opened and Mr. Willam came out. It needed but a glance to show him what Tom was doing. And then he proved himself a bigger man than he was supposed to be.

"Mr. Swift," he said, holding out his hand, "I want to congratulate you and say how sorry I am for what happened. It was a matter of business on my part to beat your sky train, if I could. I was a big holder of Acton stock, and perhaps I didn't play as fair as I should. But I want you to know I never urged

Davis to any desperate acts against you. I only told him to use decent means to hamper you.”

“Yes, I know, Mr. Willam. I know you had nothing to do with the acid business nor with Davis trying to attack me. It may have been legitimate business for you to try and hold me back as you did—but I beat you out!”

“Yes, Mr. Swift, you did! I’m out of the Acton concern now. And if you should happen to want a loan——”

“Thanks,” interrupted Tom, dryly, “but we have all the money we need now.”

“But if you should need it in the future,” Mr. Willam insisted, “come to me. I suppose you will be turning out something new, soon, at that plant of yours.”

“Maybe,” said Tom. “You never can tell.”

THE END

## TRANScriber Notes

Misspelled words and printer errors have been corrected. Where multiple spellings occur, majority use has been employed.

Punctuation has been maintained except where obvious printer errors occur.

### Corrections:

In the Table of Contents: "XXIII THE RACE" was listed twice, omitting chapter XXII. Replaced with "XXII READY To Go".

On page 3 of the original text, line 1, word 4: "Nothing will happen, Tom! . . ." has been changed to "Nothing will happen, Ned! . . ."

[The end of *Tom Swift and his Sky Train* by Howard Roger Garis (as Victor Appleton)]