WEB OF STEEL

This is a Thrilling Story of American Life as Strong, Courageous Men Live It

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YOUNG BERTRAM MEADE LEARNS IN A FRIGHTFUL EXPERIENCE JUST HOW MUCH HELEN ILLINGWORTH MEANS TO HIM

The Martlet Construction Company is building a great international bridge planned by Bertram Meade, Sr., a famous engineer. His son, Bertram Meade, Jr., resident engineer at the bridge, is in love with Helen Illingworth, daughter of Colonel Illingworth, president of the company. Young Meade questioned his father's judgment on the strength of certain important steel beams in the gigantic structure but was laughed to scorn. He still has private doubts, though outwardly agreeing with his elder.

CHAPTER II—Continued.

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In spite of herself the woman looked at him.

"But now?" she whispered as he hesitated, and then she turned her head half fearful of his answer.

"I am almost afraid to say it," he said, lowering his voice to match her own.

"A soldier of steel," she said, "and afraid!"

"Well, then, all that was the second now takes the third place."

"And before your father comes?"

But she did not give him time to answer. "Come," she said, "let us go out on the bridge."

"It's a rough place for you. Those little slippers you wear—"

He looked down, and as if in obedience to his glance she outthrust her foot from her gown. It was not the smallest foot that ever upbore a woman. Quite the contrary. Which is not saying it was too large, not at all. It was just right for her height and figure, and its shape and shoe left nothing to be desired.

"Never mind the slippers," she said; "they are stronger than they look. They'll serve."

"But the distance between here and the bridge is inches deep in dust."

"Dust!" she exclaimed in dismay. "I don't mind rough walking, but dust—"

"I never thought of that," admitted the man. "The fact is I have thought of nothing but you since I saw you, but now we'll have to go back or—"

"I shall not go back," she answered firmly.

He stepped down off the platform, and before she knew what he would be at, he lifted her straight up in his arms. He did not carry her like a baby, he held her erect, crushed against his breast, and before she had time to utter a protest, even to say a word, he ste[p]ped off the dusty roadway [i]nto.

It was [s]he knew she ou[t] words would [h]ave been trying t[o] the [s]ame time. [S]he cast upon [h]er eyes. [T]here was a mystery [a]bout it little. It [w]as over before they pressed [o]n.

CHA[P]TER III.

Fall and Revelation.

"It's rather confused in here," the man, "but we will soon ge[t] toward the end and then the vi[ew] magnificent. You can see up and [d]own the river for miles and the night [e]xpress will be along in a few minutes."

"Isn't that it?" asked the wo[man], pointing up the river to where a [c]luster of lights rounded a huge bend [i]n the far away, and swung out in midstre[am].

"Yes," said the man, "if we liste[n] think we can hear her."

They both stopped and, sure enou[gh], faintly across the water came [t]he noise of clanking paddles of the [g]reat river steamer. With that sound [was] mingled the song of the night w[ind] for a wonder comparatively ge[ntle], making strange, weird harmonies [as it] sifted through the taut and righ[t] ropes of steel. She listened enchant[ed] to the sound.

The big floor beams extend[ed] [f]rom one to the other of [the] cantilever trusses at [the] right angles [to the] line of the bridge, and the [ends] of these rested on the stringers. [Be]tween the stringers and the floor beams and the [st]ringers.

After they [h]ad reached the top of the pier and got beyond the small space of river bank on which the pier was set, there was nothing between them and the water, now moonlit and quivering, except these cross-girders of steel on either hand beyond the planking in the tracks.

"Have you a clear head?" asked the man. "I mean does it affect you to be on high elevations? Do you get dizzy?"

"I never have," was the answer, "but—"

"I think I'll hold you," was the reply.

He grasped her firmly by the arm. The loose wrap she was wearing over her shoulders did not cover her arms, and it was a bare arm that he took in his hand.

"I beg your pardon," he said quickly, "but—"

"It doesn't matter. I understand. You would better hold me, I might slip." There was something electric and compelling in the pressure of his strong hand upon the firm flesh of her round arm. She shrank closer to him, again unthinkingly, by a natural impulse.

The moon was now well clear of the brow of the highest hill. Its yellow was turning to silver and in its cold and beautiful illumination the whole river flowed bright beneath them. Every inch of the bridge was now clearly revealed in the white, passionless light.

Fifty feet away it ended in the air. They were now almost directly beneath the traveler, near the end of the suspended span. Its huge legs sprawled out like those of a gigantic animal on the extreme edges of the bridge on either side above their heads. The wooden platform on the track ran out half the distance to the bridge end. Slowly the two walked along it until but a few feet were left between them and the naked floor beams and the stringers carrying the ties to which the rails were bolted and the planks laid.

By the side of the track on the top of the stringers had been placed a pile of material surmounted by a large flat plate of steel, which lay level upon it. It was triangular in shape, the blunt point inward. The base which was about six feet wide paralleled the course of the river. The plate on the top of the pile was raised about three feet above the level of the track. They stopped abreast of it.

"Can't we go any further?" asked the girl in low tones, still close to the young man, who still lightly clasped her arm.

"I'm afraid it wouldn't be safe to go any farther," he said.

"I want to see the steamer. It will pass directly under the bridge."

"They have no business to pass under the bridge," said Meade. "They've been warned hundreds of times and orders have been issued. There is always danger that something might [h]appen."

"Why can't I stand up there?"

"On that gusset plate?"

"Is that what you call it?"

"Yes, it bears the same relation to structural steel that a gusset does to a man's dress."

"Exactly. But can't I stand on it?"

"Wait," he answered.

He climbed to the center of it, lifted [h]imself up and down on his feet to test [it]. He found it solid apparently.

"I think so, but I shall have to put [y]ou," he said at last as he lifted [h]er up and set her down on her feet in the middle of the plate of steel.

"Oh, there comes the steamer," she [c]ried. "I can see it beautifully from [h]ere."

"Be careful. You must not move. [K]eep perfectly steady. I am not so [s]ure of that plate." He reached over [a]nd there he stood on the track be[h]ind and by her side and gathered [t]he material of her dress in an iron [g]rip.

"I don't think that is necessary," [s]he said. "This plate seems as solid as [a]ny of the bridge and—oh, there's [s]omething! She's right under us."

The river craft was filled with [l]aughter. The wind fortunately [b]lew the smoke away from the [b]ridge, so that they had a clear and [u]nobstructed view of her. There was a band [o]n board her. They heard the [m]usic, or the beat of the whirling [p]addles, the song of the rising wind. [T]he passengers were congregated [o]n the rails on the upper decks [l]ooking upward. The bridge was as [f]ascinating to them as it was to the people ashore evidently.

"How interesting," said the delighted girl. "Why don't you come up here yourself, you can see so much better?"

The man had dropped her gown, lifted his right foot to the pile on the stringers to follow her suggestion. Thoughtlessly she stepped toward the outer end to give him room, quite forgetful of his caution. Before he could complete his step or warn her of the danger, it now bent forward. It tilted distinctly. In spite of herself, Helen Illingworth was carried still farther forward as she sought to regain her balance. The piece of steel began to slip downward, grating on the pile of beams as it moved; another second and it would be off and on its way irrevocably.

Meade threw himself at the girl. He lunged out and caught her just as she was slipping downward with the plate now almost perpendicular. To catch her he had to step to the very edge of the planking beyond which the rails ran naked on the ties.

With a tremendous effort he caught her by the waist, swung her up and in, and stood fast on the brink quivering, heaving himself desperately backward as he sought to maintain his balance and take the backward step that meant safety.

A wild shout rose from the steamer as the huge plate drooped, like the blade of a mighty guillotine, straight down through the air. If it had struck the boat, it would have cut through like a knife. Fortunately it cleared the gangway by inches. In a second it had disappeared. Screams, shouts, arose from the boat which promptly sheered off into midstream.

Helen Illingworth's back had been toward Meade as he seized her. She had seen as he had everything that happened. Recovering himself at last, he stepped back slowly, almost dragging her, until they were a safe distance from the edge. His face was ghastly white in the moonlight. Sweat covered his forehead. He was shaking like a wind-blown leaf.

"The whole world went black when I saw you go," he said slowly.

"Do you care that much?" asked the girl, trembling herself.

There was no necessity for maidenly reticence now.

"Care?" said the man. "Care?"

"I'm all right now."

"You are more fortunate than I. I stood to lose you, you stood to lose only life. Don't you see? Can't you understand?"

Suddenly he swept her to his breast as this time she faced him. She was very near him and she did not make the slightest resistance. She had waited for this hour and she was glad. They had faced death too nearly for any hesitation now. She knew he loved her, and knew that he had saved her at the imminent risk of his own life. There had been swift yet eternal moments when it seemed that both of them, trembling on the brink, would follow the downward rush of the gusset plate. Now as he strained her to him, she lifted her face to him, glad that she was tall enough for him to kiss her with so slight a bend of the head.

There, under the great trusses of steel, amid the huge, gaunt, massive evidences of the power of the might, of the mastery of man, two hearts spoke to each other in the silence, and told the story that was old before the first smelter had ever turned the first ore into the first bit of iron, before Tubal Cain ever smote the anvil; the story of love that began with creation, that will outlast all the iron in all the hills of the earth—that is as eternal as it is divine!

After that wild embrace, that first rapturous meeting of lips, he released

He Lunged Out and Caught Her.

her slightly, though he still held her closely and she was quite content.

"I'm quite calm now," he began, "that is, I am as composed as any man could be who is holding you in his arms. But if it had not been for me, you would never have been in danger. It was my fault. I should have made sure. I shall never forgive myself."

"But if I had not been in danger I might not now be here in your arms. And if I were not here," she went on swiftly, too happy in her love to be mindful of anything else, "I certainly would not be doing—this."

And of her own motion she kissed him in the moonlight.

"And if you were not doing this," said he, making the proper return, "I might not have had the courage to tell you."

"You haven't told me anything—in words," she answered, fain to hear from his lips what she well knew from the beating of his heart.

"It's not too late then to tell you that I love you, that I am yours. To give myself to you seems to be the highest possibility in life, if you will only take me."

"And do you love me more than the bridge?"

"More than all the bridges in the world, past, present and to come; more than anything or anybody. I tell you I never knew what love was or what life was until I saw you sliding to your death. If I had not succeeded I should have followed you."

"I felt that, too," she answered dreamily.

"We must go back, dearest," he said at last, "I am so fearful for you even now that I am almost unwilling to try it. Every time I glance down through these interspaces between the stringers my blood runs cold."

"You supported me before; I will support you now," laughed the woman, woman.

"No," said the man, "we will go together."

They turned toward the shore. He took her hand and slipped his other arm about her just as simply and naturally as if they had been any humble lover and his lass in the countryside. By and by they got to the end of the bridge. Far down the platform they could see the lights of the car.

"Listen," she said as they walked slowly along. "You must not tell father anything about this little accident."

"I obey, but why not?"

"It would only worry him, and it was my fault."

"No, mine."

"I will not hear you say it."

"But I must speak to your father about—"

"And the sooner the better; he is in good humor with you and the bridge now. I have heard him speak well of you. I believe he will be glad to give me to you."

"And if not?"

"I should hate to grieve my father, but—"

She turned and looked at him in the moonlight, her glorious golden head, her neck, her shoulders, her arms bare and beautiful in the celestial illumination. He seized her hand and lifted it to his lips as a devotee, and she understood the reason for the little touch of old-world formality and reserve, when naught but his will prevented him from taking her to his heart and making her lips, her eyes, her face, his own.

"Now may God deal with me as I deal with you," he said fervently, "if I ever fail at least to try with all my heart and soul and strength to measure up to your sweetness and light."

"My prayer for myself, too," she whispered.

"You need it not."

"You must wait here," she said, deeply touched, as they had now reached the steps of the car, "until I have changed my dress; father would notice—anybody would—that tear. When I have finished I will come back to you and then we will seek him and tell him."

Accordingly Meade stood obediently waiting outside the car in the shadow it cast. There was no one about. The servants had gone to bed. The porter of the car was nodding in his quarters, waiting for the time to turn out the lights. The engineer had the long platform all to himself. After a time he chose to walk quietly up and down, thinking. The future looked very fair to him.

"Bert," a sweet voice came to him out of the darkness. He turned to discover her standing in the door of the car dressed as she should have been for such an excursion had she at first followed her father's wise suggestion. His heart thrilled to the use of the familiar name. "Bert, I'm coming down to you."

Hand in hand they walked to the rear of the car, where the observation platform was still brightly lighted. Abbott had gone and the other three men were on their feet. They were about to separate for the night, although it was still rather early.

"Father," said his daughter out of the darkness.

"Oh, you're there," answered the colonel. "I wondered when you were coming back. I was just thinking of going to fetch you. Is Mr. Meade—?"

"I'm here, sir."

"Good night, gentlemen," said the colonel as the others turned away, leaving him alone on the platform. He came to the edge and leaned over the brass railing.

"Are you two going to make a night of it?" he asked jocosely.

"Colonel Illingworth," began Meade.

"Father," said his daughter at the same time, "we have something to say to you."

Colonel Illingworth opened the gate, lifted the platform, and descended the steps.

"Here I am," he said as he stopped by the two.

His daughter took him by the arm and they walked down the platform so as to be out of any possible hearing from the car.

"Now," she said to Meade, who followed her.

His heart was beating almost as rapidly as it had on the bridge, and for exactly the same reason—fear of losing her. He tried to speak.

"Well, young man?" said Illingworth, flicking the ashes from his cigar and wishing to get it over, "you said you had something to say to me."

"It's a very hard thing to say, sir." He looked helplessly at the girl, but she was speechless. It was his task. If she were not worth asking for, she was not worth having, she might have said. "Well, sir," he began desperately, "I love your daughter, Helen. I want to marry her."

"Umph," said the colonel, "I supposed as much. How long have you and Helen known each other?"

"Over a year, sir, but I loved her from the very moment I saw her. I did not dare hope, I didn't dream, I never imagined, and strange as it may seem, sir, she—seems to love me."

"Of course I do," said Helen, realizing that it was now high time for her to come to the rescue of her lover, "and so would any other woman."

"You know, of course, that while I am not rich, I am not poor, and I can support my wife in every comfort, sir," urged the man, greatly relieved by the woman's prompt avowal.

"She'll need a few luxuries besides, I'm thinking."

"Yes, of course, sir, I'll see that she gets them. This bridge is going to make us all famous, and I shall have my father's influence and—"

"When the bridge is finished," said the colonel decisively, "come to me and you shall have my daughter."

"Oh, father, the bridge won't be finished for—" began the girl.

"I understand, sir," answered the engineer, too happy at her father's consent to make any difficulties over any reasonable conditions he might impose. "Yes, Helen, it's all right; your father is right. This job's got to be done before I—"

"Oh, don't say before you tackle another," protested the girl, half disappointed, and yet seeing the reasonableness of both men, while the colonel laughed grimly.

"That's about the size of it," said the old man, "no matter how you put it. One thing at a time. Meade, I don't know anybody on earth I would rather have for my son-in-law than a clean, honest, able American with a record like yours. A man who can look me in the eye and grasp me by the hand, like this."

He put out his hand as he spoke. Meade's own palm met it and the two men shook hands unemotionally but firmly, after the manner of the self-restrained, practical American, who is always fearful of a scene and does not wear his heart upon his sleeve. The colonel threw away his cigar, slipped his arm around his daughter's waist, kissed her softly on the forehead.

"I hate to lose you, Helen. I hate to give you up to anyone. We have been very happy together since your mother died, leaving you a little girl to me; but it had to come, I suppose, and perhaps I shall be glad in the end. Good night, Meade. You will be coming in presently, Helen?"

He turned and walked away as they answered him. They watched him go slowly with bended head. They watched him climb, rather heavily, up the steps to the car—that he was an old man seemed rather suddenly borne in upon them. He stood for a moment in the light, smiling, remembering, and then turned and marched within the car. He switched the light out as he passed down the corridor.

"Wasn't he splendid?" said Helen, when she had time to breathe and freedom to speak.

"One of the finest old men on earth. He and father would make a great team."

"I was interested in the bridge, before," said the woman, "but think how I shall watch it now. You must write me every day and tell me every inch that you have gained."

"Trust me, I'll measure it in millimeters."

"And now, sweet love, good night," she whispered. And she laughed as she looked back at him through the door.

CHAPTER IV.

The Deflection in the Member.

Three days after the departure of the Illingworth party the young engineer fell ill with follicular tonsilitis, which is about the meanest small thing that can lay a strong man low. He fretted over his enforced absence from the work and in the end had to pay for that very fretting, for he got up too soon and went out too quickly, and was promptly forced to bed again as a consequence of his impatience.

Now, after a week's confinement in his cabin, he felt strong enough to venture out again and to attack his problems. They were personal problems now, much more intimate than before, for he was building not only the bridge but weaving in its web of steel his own future happiness.

Of course he had been able to get out on the rough porch of his galvanized iron shack where he had the bridge in full view, and the day before he had even walked unsteadily down to the river bank, where he had been equally surprised and delighted at the progress that had been made. Abbott was a driver after his own heart. Really things seemed to have gone on just as well without him as if he had been on the job. He had not been lonely in his illness, for all of the chief men connected with the construction had done their best to beguile the tedium of his hours by visiting him whenever they could spare the time.

Abbott had been especially kind in his somewhat rough-and-ready way. The big construction superintendent was fond of Meade, although he undervalued him. He regarded him more as a theoretical than a practical man and the inevitable antagonism between the theorist and the practical man, when they are not combined in one personality, was latent in Abbott's heart. Nightly, he brought to Meade details of the progress of the work. That evening, just before leaving, he remarked in the most casual manner in the world, as if it were a matter of little or no importance, that C-10-R was a trifle out of line.

Now C-10-R was the biggest member of the great right-hand truss on the north side of the river. It consisted of four parallel composite webs, each

"When the Bridge Is Finished."

formed of several plates of steel riveted together. These webs were connected across their upper and lower edges by diagonal latticing made of steel angle bars. C-10-R and its parallel companion member, C-10-L, in the left-hand truss, carried the entire weight of the cantilever span to the shoe resting on the pier. These members were sixty feet long and five feet wide. The webs were over four feet deep and in size and responsibility the great struts were the most important of the whole structure.

To say that C-10-R was out of line meant that it had buckled, or bent, or was springing, and had departed from that rigid rectangularity and parallelism which was absolutely necessary to maintain the stability and immobility of the truss and the strength of the bridge. To the theorist nothing on earth could be more terribly portentous than such a statement, if it were true. To the practical man, who, to do him justice, had never dealt with such vast structures—and he was not singular in that because the bridge was unique on account of its size—the deflection noted meant little or nothing.

"Good God!" exclaimed Meade, aflame on the instant with anxious apprehension. The night was warm and he was dressed in his pajamas and had been lying on the bed. As if he had been shocked into action he sat up, forgetful of his weakness. "Deflection!" he fairly shouted at Abbott, who regarded him with half-amused astonishment, "a camber in C-10-R? Why didn't you tell me?"

By this time Meade had got his feet into his slippers and was standing erect.

"It isn't enough to make any difference," answered Abbott quickly, perhaps a little disdainfully.

"It makes all the difference on earth," cried Meade. "It means the ruin of the bridge."

He reached for his jacket, hanging at the foot of the bed, and dragged it on him.

"Don't worry about it, youngster," said Abbott rather contemptuously, although he meant to be soothing. "I'm going to jack it into line and—here," he cried as Meade bolted out of the door, "you'd better not excite yourself that way. Come back to bed, man, and—"

How young Meade faces a great crisis and what he does in trying to avert serious trouble is told in a thrilling chapter in the next installment.

(TO BE CONTINUED.)

Must Be Able to Overlook.

Two persons will not be friends long if they cannot forgive each other little failings.—La Bruyere.