

a temperature, and instead of lessening the degree of heat they had begun increasing it.

At the temperature revealed by my test, probably not more than ten minutes before the mixing process, the mixing-house would have been blown to atoms, and the adjoining buildings would probably have gone with it. As for the score of men working in the room, it is doubtful if more than a memory would have been left of them.

There is always the possibility of fortune and fame just ahead of the untiring analytical chemist. It is this possibility which makes the profession so fascinating. We may experiment and experiment, and throw away mess after mess; a hundred times in succession a mere smudge may come out of the crucible; and then, on the hundred and first experiment, there may be a fortune. For instance, it might be a synthetic rubber that could be made to sell as cheap as wood, or it might be an absolutely perfect synthetic tooth-enamel.

There was a young amateur in chemistry named Hyatt, who was extremely fond of dabbling in all sorts of queer messes. One day he combined camphor and gun-cotton, and the result was a soft, white substance which hardened. He thought that if he could mold this into sheets, it might prove of commercial value; so he went to several of the professors of chemistry, and asked if it could be done. They all told him that it could not. They said that a terrific explosion would result.

Theoretically, an explosion should result from this process; but chemistry does not always run according to theory. One noon, when every one else was away, Hyatt took the chance, heated the substance under pressure, and stood by to watch the result. Instead of producing an explosion, he had turned out the first sheet of celluloid!

There are, of course, a great many tricks in trade goods. There have been many exposures of adulteration in foodstuffs and other articles. I have analyzed a delicious wintergreen flavoring extract and found that it was composed of carbolic acid, coal-

tar, and some third substance which was not wintergreen. In fact, the first thing that an analytical chemist looks for when analyzing foods, dyes, perfumes, and cosmetics is coal-tar, or coal-tar products.

Only a little while ago a man came to me with a certain article which I cannot mention, as it has lately been put on the market.

"There is only one defect in this," he said, "and that is its terrible smell. No one would buy it just because of that. The odor really doesn't hurt it, but you can't convince the people that anything smelling as this does can be any good."

The man was right. It did smell terribly. From the very nature of the article I could not even hazard a guess as to the cause, but I thought I knew a remedy. I told him to sit down and wait a minute. Then I took his sample into my laboratory and treated it with ozone, which is a very simple and short process.

I had hit it right the first time. When I brought it back and gave it to my client, it had no odor. He sniffed at it, examined it carefully, cut into it with his pocket-knife, and exclaimed:

"What have you done? Substituted something else in this tin?"

I assured him that I had not, and told him what a simple matter it would be to do away with the odor. That man paid me well, exceedingly well, considering that I had been to no expense whatever and that he had taken only twenty minutes of my time.

I suppose every chemist has his dream. I will finish my confession by admitting that I have one. My dream is to create a mineral brick which will stand a heat test of four thousand degrees Fahrenheit. If I can produce such a thing, there will be a big and steady market for it. All existing fire-bricks, when put under exceedingly great heat, melt along the edges, which necessitates frequent rebuilding.

Some day I'm going to perfect that brick!

## MY QUEST

DISCOURAGED, weary, and depressed,  
I sought the rainbow's end;  
At last I found it—fairy quest!  
A heart of gold—a friend.

*Florence Earle Buek*

# HER GREATEST SUCCESS

BY EDWARD BOLTWOOD

WITH A DRAWING BY WILL FOSTER



IN the long silence that followed her gentle refusal to marry him, Crawford turned away from Helen and gazed moodily down at the turmoil of the New York street.

Helen's eyes, meanwhile, rested proudly on Crawford's reliable shoulders. Ever since the time when they were school children together, she had been proud of his steadfast reliability. To think of it now vaguely soothed her. She knew that he would endure this disappointment as hardily as an oak endures the sting of a December wind.

Suddenly she became aware, with a strange subconsciousness beneath her tender sympathy, how markedly out of place Crawford looked in that room. It was the sitting-room of the flat which Helen shared with half a dozen other trained nurses.

None of them ever had leisure, or money, or inclination, to make it a homelike place. Why should they trouble themselves to do so? They could not use a home of their own. The shabby room, with its ugly set of stiffly arranged furniture, its bare walls, and a rectangular pile of old magazines on the little table, looked like the parlor of a cheap hotel.

Amid such colorless surroundings, Crawford seemed to Helen almost absurdly incongruous. His brown, country-bred face suggested to her the teeming home life of a farm. His healthful figure was too vital for that anemic sitting-room; a broad-hearthed New England kitchen would have been its proper background, with women at housewifely tasks and children playing on the floor.

Crawford turned from the window and extended his muscular hand, hardened by

labor of the field. Miss Thayne instantly clasped it.

"I was pretty sure, Nellie, that you'd say what you did, but I just had to ask you. And—well, things are the same, aren't they?"

"Of course they are, Martin," she assented affectionately.

"You've got to promise me that you won't work too much, anyhow," he murmured.

"It's impossible for me to work too much, Martin, because I love—I like it so." She altered the verb rapidly. "When you get home to Farfield to-morrow, you must tell all my people how busy I am," she added.

"And happy?"

"Well," smiled Helen, "I'll be happy when I succeed—when I'm the best nurse in New York, and when the big doctors send for me. Then, you know, I mean to be a doctor myself, and become a famous woman."

With a light laugh she nodded at a somber row of medical books on a shelf. Crawford, pretending to examine the titles of the volumes, moved toward a near-by chair, from which he picked up his wide-brimmed hat.

"A famous woman!" he repeated, creasing the black felt thoughtfully. "A famous woman! I wish I could help you, but I—I don't see—I'll tell you what, Nellie. I'll go out now, and break my leg on my way to the Ashby Hotel. Then I'll call in one of those big doctors and make him employ you. How's that for a scheme?"

Crawford's trifling pleasantry served its purpose well enough, and they shook hands and said good-by without a visible trace of emotion.