

Below Zero

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From *Argosy*, May 18, 1918

The activities of the Federal Secret Service men had been so great and so efficient during the spring and summer that we found our hands tied. Our well-arranged plans to injure the United States and hamper its war activities were amounting to nothing whatever. Our agents, after several hundred or more had been arrested and shot, refused to obey our instructions and the carefully planned campaign we had arranged was amounting to nothing.

Through the channel I must not mention I began to receive complaints from Berlin. These were accompanied by most urgent and insistent orders that something be done to convince the people of Germany that their government agents in America were disrupting the American war activities. As I was the head of the entire German activity in the United States this meant that Berlin looked to me to carry out the orders.

I was in no manner suspected by the United States Secret Service. I think I may say that all my arrangements had been made so carefully that I would be the last man suspected.

My position at the head of the great firm of J— and Company was quite enough to seem an absolute guarantee for my patriotic Americanism, and I had fortified this by acts of seeming patriotism until I was actually looked upon as one of the most staunch and true Americans.

Our plans had, of course, included the blowing up of all munitions factories and all factories whose activities aided the war work of the United States or her Allies. We also planned the destruction of all important bridges, the wrecking of tunnels, and the sinking of as many ships and boats as possible.

All this was planned in the most systematic manner and there were no flaws in any part of the scheme. We had the explosives, we had the men sworn to obey the orders.

In only eight cases, however, out of some seven thousand destructions we had planned, were our men able to do their work. I am convinced there must have been some leak somewhere — some traitor — or the things that happened could

not have happened. The United States Secret Service men seemed endowed with supernatural prescience. Often, when our faithful fellows went to some factory or bridge to do their work, they would be arrested on the spot. More often they would be arrested just as they were starting out to do it.

Men — even sworn men — are but human, and it soon became quite clear that any attempts of the sort we desired were mere suicide and would amount to nothing but death for our agents. Many of them simply refused to obey the orders that came to them from the mysterious “No. 44” (which was myself) and, in a word, our whole plan went to pieces.

When we were able to send our agents forth it was to send them to certain death. That became so sure that I was forced reluctantly to abandon all activity.

Thus we reached the last week of December. I remember that I was sitting at my desk in my office on the twenty-eighth floor of the — Building, in New York, looking out over the harbor when my brother John entered.

I was almost mad with irritation over the flattening out of our well-laid plans. Lighters, canal-barges, car-floats, and so on were teeming on the waters of the harbor and of the two rivers when I had hoped that by this time the commerce of America would be dead, due to our efforts.

The winter had been unusually mild on our coast. We read in the papers of severely cold weather far north, especially in Northwestern Canada, but in the Eastern United States there had been but little snow and almost no ice. There had not been enough cold to interfere with the orderly progress of affairs even temporarily.

My brother John was the one other man entitled to sign the mystic No. 44 to orders. He was the only other person in America aware that I was at the head of Germany's destructive propaganda here.

He and I never spoke so much as a word to any person except each other on the great subject. Even my wife did not know I had so much as the slightest leaning toward Germany. She thought I was a staunch American.

Of John's reliability I had not the least doubt. He was a widower, with one daughter, Anne. Anne was twenty and a bright girl, but never by word, hint or gesture did she ever guess that her father was anything but a hard-working

chemist, entirely wrapped up in his labors.

Anne did not like me. She considered me selfish because I was the owner of the great chemical works and allowed her father to labor for me on a mere salary as chemist. I often smiled over this since, in fact, John and I were equal owners of the factory.

John entered my office now and seated himself close by me.

“I’ve just come down from the factory,” he said. “I’ve got something new — something I’ve been working on for weeks.”

“Explosive?” I asked.

“Not exactly,” he said and smiled.

He drew from his overcoat pocket a tin box and opened it, putting it on the slide of my desk.

I poked into the contents with a finger. The stuff was white. It might have been coarse table salt or granulated sugar, but there was a slight odor of ammonia.

“It is a coal saver,” he said. “It adds forty per cent to the heat-producing value of coal — especially low grade coal. I’ve tested it out and it works.”

“There have been plenty of such things exploited before this,” I said. “They work, but they cost more than the coal would cost.”

“But this does not cost any such proportion,” said John. “This is so cheap it hardly costs anything. Here is the formula.”

He put a paper on my desk and I cast my eye over it. I know something of chemistry, of course, and more of the cost of materials.

He was right; the stuff was so inexpensive it could be produced for little or nothing.

“And it works?” I asked.

“Oh, absolutely!”

“Well —” I said, and pushed the paper back on my desk. I was thinking. “We can get the stuff on the market after the war. It is just what we don’t want to put out now; it would increase the value of every ton of coal mined by forty per cent, wouldn’t it?”

“Yes,” John said, but he still smiled in that peculiar way.

“Look here!” I exclaimed. “You don’t mean you want to make this stuff now, do you? You don’t want the United States government to grab it and use it? We might just as well show them how to add forty per cent to the coal output.”

“Just the same,” said John, “I want to produce it.”

“John,” I said, “you haven’t gone over to the Yanks? You haven’t deserted the Kaiser?”

“No,” he answered, still smiling.

“Then what do you mean?” I wanted to know.

“Well, George,” he said, “you might read that paper I handed you all the way through.”

I drew the paper toward me again and glanced at it. I had only looked at the formula before, now I read what followed.

It was a brief resume of the experiments connected with the testing of the white stuff, written in John’s concise, chemist style. “Two ounces mixed with fourteen pounds of coal, Grade A,” “Three ounces mixed with one hundred pounds of coal. Grade B,” and so on.

There were column after column of results, given in technical terms of steam pressure secured, heat units, and so on. It was all matter for which I would have taken John’s word, and had already taken it, as far as that goes. It was not until I came to the final lines that I looked up in surprise.

“What’s this?” I asked. “This is a mistake isn’t it?”

John shook his head, still smiling his enigmatic smile.

“No; that’s not a mistake. I did not know the white stuff would have that reaction on the air, but it is not a mistake. I’ve made exact tests.”

I read those last lines again.

““Torol”” — that was what he called the white stuff — ““does not burn while the coal with which it is mixed is being consumed. My tests show that it is converted into a gas, which I call Torologen, colorless and odorless. This gas escapes and mingles with air. One cubic inch of Torologen is sufficient to lower the temperature of one hundred thousand cubic feet of air ten degrees Fahrenheit.””

I looked at John.

“You mean to say —” I began.

“I mean to say I have not thought out a way to control this Torologen gas yet,” said John. “What I mean is that one cubic inch of it will lower the temperature one hundred thousand cubic feet of air ten degrees, or fifty thousand cubic feet twenty degrees, or a million cubic feet one degree. I mix the stuff with coal, you understand, to make the coal give forty per cent more heat while burning, and the gas of the Torol goes up the chimney. It mixes with the air and cools the air. That is a thing I will have to overcome before we put Torol on the market commercially, but as a war weapon —”

He looked at me with that same smile.

“John,” I said seriously, “do you think you can do it?”

“Well, George.” he answered with pretended lightness, “I’ll tell you. I’ll let you figure it out. One ounce of Torol thrown into a furnace will send eight hundred thousand cubic inches of Torologen up the chimney. That’s how the stuff expands under heat. Those eight hundred thousand inches of Torologen, mixing with the outer air, will lower the temperature of one hundred thousand times that quantity of air ten degrees. It will lower the temperature of eighty billion cubic inches of air ten degrees.”

“I understand,” I said.

“That is what an ounce will do,” continued John. “A pound will do sixteen times that and I can hold a pound of the white stuff in the hollow of my two hands,

easily, George,” he broke out, suddenly becoming serious, “with a couple of barrels of Torol mixed in the coal we use normally in our furnaces at the factory I can lower the temperature of a district extending ten miles on every side of New York City to twenty degrees below zero, and by using a couple of barrels a day I can keep the temperature there as long as I wish! That will cost about ninety-six cents a barrel — one dollar and ninety-two cents a day!

“I can send the temperature down to forty below zero as I wish, and I can keep it there as long as I wish, and the cost will be under four dollars! And, George, not a soul in the world but you and I will know what is doing it! Not a soul! I’ll be trying out a new chemical coal-saving invention and one that does save coal. My stokers and my engineers at the factory will be enthusiastic about it. They will think I have discovered something that will be of untold value to the United States, in saving coal — in producing more power from a ton of coal than was ever thought possible. And, all the while —”

“We will be freezing the United States into submission!” I exclaimed. “But there is not the slightest chance of our being discovered, is there? You and I must not take any risks, John, We are important men.”

“I know that. If there was one chance in a hundred million that we could be detected I would not suggest doing this,” John replied. “There is no risk. What risk can there be? The weather, which has been mild, changes. We have a cold spell, and it hangs on,”

“But this gas — this Torologen — can’t it be detected in the air?”

“Absolutely not! Not a trace of it! I’ve tried that out, George. It disappears when it mingles with the atmosphere. No, it is absolutely safe. Say the word and I will tie up New York, which is the heart of America, so tight not a pulse will beat!”

“Go ahead, John,” I told him.

The next day when I went out of my house I tested the air with my hand and smiled to myself. The newspapers had announced, “Clear; slightly warmer.” Instead of this being true the air was crisp and cold and the water in the gutters was frozen solid.

During the day the cold increased and by night men and women were hurrying along the streets, beating their hands together to keep warm. At midnight the

temperature, as officially announced the next day, was one degree below zero and it fell all night at about the rate of one degree an hour. At nine it was ten below zero.

The morning papers, basing their articles on the weather reports, mentioned the sudden cold wave and assured their readers that nothing serious need be expected as the weather bureau predicted warmer weather immediately.

The papers, as you know, are printed about midnight. By the time they were on the streets their optimistic articles had lost all sense; the city was frigid and growing colder each minute. By noon the lowest record ever known was passed and the thermometers registered fifteen degrees below zero. I give the official figures.

By midnight John, by the use of Torol, had driven the atmosphere down to twenty below zero, and there he held it.

I do not mean to say that he was able to hold the mercury exactly at that figure, nor would he have done so in any event. At times the figure registered was as high as ten above zero; one night it touched twenty-five below. That was an awful night in New York. There were over two hundred deaths from freezing.

New York is not built nor prepared for such weather. In a few days the rivers and great stretches of the harbor were frozen over and all water traffic stopped. The severe cold interfered with all varieties of work and the men in the coal yards and on the coal wagons and trucks dropped from their places exhausted. Nine-tenths of all the food in the city, and practically all the food entering it, was frozen and unfit for eating. No milk was to be had whatever. Water pipes and gas pipes froze everywhere.

Not a ship was able to leave the harbor for Europe and not a ship was able to enter. All this was excellent for our purpose. Work came to a practical standstill; in the factories the workers were too cold to use their hands. The making of uniforms and munitions stopped short.

The beauty of John's idea was that conditions would grow worse each day. Each hour of additional suffering meant much to us.

The first riots that broke out brought a smile to my face, and I do not often smile. There were raids on some yards and factories that were suspected of hoarding

coal and the police had great difficulty in handling these first small outbreaks; what would happen when week after week of this weather followed I could easily foresee.

John came to my office one day when he had had about a week of his twenty below zero weather. He was well wrapped in mufflers and coats.

“Cold!” he said as he entered and began to beat his hands. “Can’t you keep this place warm?”

“It is like an iceberg here all the time,” I told him. “They shut off our steam three days ago. I’ve only got this one oil-stove. It does not give much heat. My wife is complaining. She wants me to go south; we can’t keep the house warm.”

John was spreading his hands over the oil-stove,

“It is working fine, isn’t it?” he said. “And not a suspicion, George! Not a chance of a suspicion. In a thousand years no one would guess! I can’t keep it up forever, of course. I’ve got to let a little warmer weather come for a spell now and then, and when spring comes we’ll have to taper off and give it up. But by spring —”

“Long before that, John,” I broke in. “A few weeks more of this and the country will be disorganized. The people of New York will be rioting everywhere, John!”

“Yes?”

“Do you think it would be safe to send Torol to other places? To Chicago, Buffalo — everywhere? You have nothing but a fuel conserver in Torol; we want to get it on the market; we send a barrel here and a barrel there — on trial. That ought to be safe, John. We could freeze the whole country. We could stop every wheel. We could spread riot and sedition —”

“No,” he said slowly. “I don’t think we had better try it, George. We’re doing well enough here. A month more of this will fix New York, and New York rules America. No, I’ve thought that all out. There might be a slip-up somewhere. We are safe now, and we must remain safe. As the thing is working now no human being could or would suspect you and me. There is no one to suspect. There is nothing but a spell of unusual weather —”

He stopped and looked toward the door.

My office is a foolproof place. I had it built in such a way that it would be foolproof. The walls are soundproof and the doors are soundproof. When the door is closed on my inner sanctum it cannot be opened except by myself, and my assistant in the outer office can only communicate with me by pressing a button. Then, if I choose, I open the door. The bell had buzzed.

“Or close down.” said John, quickly shifting to another topic as the bell buzzed. “Coal has become such an awful question that I doubt whether it is worth our while to keep the factory running. Of course, with government orders on hand, it is our duty to keep running as long as we have any fuel —”

This was mere camouflage of speech. I went to the door and opened it.

“Yes, Miss Anderson?” I said.

Even as I spoke I saw that her face was not as usual. She was as white as chalk and her eyes were big with fright, but before I could say more she was thrust aside and five men pushed through the doorway. They had revolvers.

There was no struggle — what could John and I do against five? What, indeed, could we gain by struggling? I submitted without so much as an angry word. I tried to be unusually polite.

“Some mistake,” I said. “I’m afraid you do not know who you are arresting, gentlemen.”

The handcuffs were already snapped on my wrists and on John’s.

“Oh, yes we do!” said the leader of the five. “We know you both. We’ve got you at last. You are the men higher up. You are the No. 44 we have been looking for since the war began. And now we have you!”

“Absolutely a mistake, gentlemen.” I assured them.

But it was not. They knew it was not. We had had then, as I have said, a week of John’s twenty below zero weather — eight days of it, to be exact.

For six days they had been watching John and me every instant. In those six days

they had discovered how I communicated with No. JTR34 and No. LU564, and had taken my code messages as I signaled them standing at my office window, moving my fingers nervously from one button of my waistcoat to another.

They told us this almost as soon as we were arrested, but it did not clear the mystery of how they had come to suspect me at first.

“Suspect you?” they mocked. “Why, you two simps just naturally advertised for us to come and get you. Did you ever hear of an aeroplane? Did you ever see one? They are those bird things that men fly in the air with.”

This was rather insulting.

“I have heard of them,” I said.

“Well, you two are so simple-minded I didn’t know whether you had ever or not,” went on the fellow. “Have you ever heard of a thermometer? Ever hear of the weather bureau?”

“I have heard of them,” I admitted.

“Why, nothing, friend, except that you and your brother here sort of forgot about the weather bureau. I guess you don’t read the weather reports on the inside pages of the papers. You are the simple-minded fellows that just read the “Fair and Warmer” at the top of the first page, and let it go at that. Well, the weather bureau had you men spotted twenty-four hours after you began to monkey with the weather.”

“The weather bureau!” I exclaimed, for it was the first time I had heard of that department taking part in detective work.

“Sure!” he said. “The weather bureau. If you read the weather reports the way you ought to you’d see them full of things like ‘The area of depression is traveling eastward and is in the neighborhood of Buffalo’ and ‘The lower barometer on the Upper Atlantic Coast indicates that the cold now prevalent in upper New York regions will travel —’ and so on. They spotted you easy! You filled little, old New York with below zero weather that didn’t come from anywhere, and that did not go anywhere. Any office boy in the weather bureau would know that kind of zero weather had to be made right on the spot. So they got an aeroplane and a thermometer and sailed it around over New York until

they did find where it was being made. It was central over the smoke stack of your factory, and your brother John here was making the zero weather with some kind of white stuff he was putting in the coal. So we took a few days to tie you both up to it, and now we've got you!"

John looked at me. He knew, of course, that we would be shot, as — from one point of view — I admit we deserve to be. He begged my pardon.

"George," he said, "you can blame this all on me. I ought to have sent Torol all over the country. I ought to have sent it up north and made some cold first, so our below zero would have had somewhere to come from."

"Please don't let it worry you, John," I said. "You could not have known that the weather bureau would go sleuthing."

"Well, I guess it won't worry either of you very long," said our captor cheerfully.