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SEVENTEENTH YEAR.

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Two of three instances of the perforation of lead by insects have recently been brought under the notice of French naturalists. In one case which happened in the Crimea during the Russian war, the lead in several packets of cartridges had been rendered entirely useless.

Recollections of a London Detective.

THE CLOSEST SHAVE OF MY LIFE.

The prison at D— is, every way considered, under a better organized and surer system of administration than any similar institution I have known. I have seen many, and looked on somewhat closely into their methods of management and discipline, and often seen much to approve; but the prison at D— surpasses all the rest. Visitors, of whom, very properly, but few are admitted, are amazed at the regularity, the order, and, most singular of all, the air of security and exceeding quiet that prevails.

As we wandered through the chambers in the free part of the prison, we came to one from the window of which a man was looking so anxiously that he did not hear us enter. When he turned round his eyes were glistening with tears. The warden says he did nothing but stand at that window at all times when he was unemployed. He was a sailor, we learned, whose offense was that he had beaten almost to death a comrade for speaking slightly about his wife. He was in for three years, six months of which had passed, and he was of the best men about the prison. They had found out that he was accomplished—that there was no better barber anywhere; so he was elevated to his position, to the extent of a dignified position and the responsibility of razor.

He has shaved me many a time better than I could do myself. Would you like a prison shave, gentlemen? said the warden.

I thought there was something quite taking in the idea, and acknowledged to be touched favorably by the proposition. "Johnson, you will shave this gentleman," said the warden.

I threw off my coat, and seated myself comfortably in the big chair. Johnson made grave preparations.

I always hated a razor. It is a villainous necessity. I wondered if any body thinks it delightful, that hissing of the sharp steel over the cheek, and that slow scrape over the throat, with the skin drawn drum-tight.

When my face was shining with the soap, the warden said: "We will leave you for five minutes, Mr. —. Is that time enough, Johnson?"

"Quite time enough, sir," answered Johnson.

The prisoner and I were left alone. My companions went away in another direction from that we had been pursuing, and the warden swung the door wide open as he passed through, leaving it unclosed. From my position I saw them walk along the top wall, until they came to a corner, where they spoke a little with the officer in charge. Then they returned, and officer and all, out of sight.

Upon each corner of the prison wall a guard is always stationed, well armed, to watch that no attempts at escape are made. The moment this one disappeared, I felt a sort of faint shiver of the razor against my lip. Immediately after my barber ceased operations, walked leisurely to the door and looked out, and returning, paused an instant at the window where we had found him when we entered. Then he came back to me and resumed his work. I felt vaguely alarmed.

"Do you hear me, sir?" he asked.

"Yes, said I."

"It's a tickling thing this shaving, isn't it?" said he. "But my hand is always steady. I can do what I please with a razor."

"Just what I please. He go good enough to keep still just now, very still. I'm close on to a large vein, you see, right in your neck. Keep very still, and don't stir. I know what would happen, and so do you. If you stirred or spoke a word."

Good Heaven! These were hideous words, but the glare of the man's eyes, as he came around in front of me, was appalling. I could not have uttered a syllable if I had died otherwise.

"Now," said he, "listen, but don't move," and he pressed the flat blade against my throat, as if by way of warning. "I don't like this. I can't stand it. I'm going!" And so help me God, if you lift a finger to stop me, or make any noise, both of us will have to die. I would a little rather not hurt you; but—remember!"

He sprang away, and caught up my coat which lay near, still keeping the razor in his hand. The moment its frightful contact was removed, my inertness vanished. I leaped up, seized the chair which I had been sitting and shouted lustily. He turned upon me like a tiger.

"Ah, you will have it, then!" he cried, and rushed toward me.

I thrust him aside with the heavy chair, and hitting it high in the air, brought it down crashing upon him. He sank for a second, but, quickly rose again. He was heavier than I, and twice as strong. I sup-

pose. Persons who have thus been in positions of great danger, will not be astonished to hear that I forgot, after my first cry, to call out at all. I thought only of defending myself.

This state of things did not last a quarter of a minute. He would have beaten me down soon enough, had I not, in sheer desperation, made use of a trick which I had once before seen successfully employed. I moved my eyes suddenly from him, and stared wildly into the space behind him, pointing at the same time and in the same direction, with my arm. By a lucky chance I pointed to the window.

I think that movement saved my life. He stopped, irresolute, glanced at the window, flung his hands above his head, gasped as if he were choking, and dashing the razor against the stone wall, fell trembling upon his knees. As I stepped swiftly across the floor, he called out to me:

"Don't go, don't go!" he said. "Stand there, at the door, if you choose, but wait a minute. It's all over now; and perhaps, if you hear me, you won't wonder that I was driven mad."

I hardly knew how to react, but as I involuntarily checked my steps, he continued: "Look out at the window, sir, and you'll see, just over the road, a woman with a child in her arms, standing in a doorway. That's my wife and baby—my poor wife and baby. She doesn't know I'm here—thank God for that. I came here under a wrong name, and she supposes I'm far away at sea. I can see it would break her heart to know the truth. Well, sir, that's my home. I've seen it, and I've seen her, every day now, these three months. I used to make my crazy, but I hear it better now. But this chance—a great chance—was too much for me. And to think that I came near losing all hope of ever seeing her again!"

Could I doubt those struggling sobe and tears? There was truth in every tone. I looked through standing on a threshold opposite, with a little child. She tossed it up laughingly once or twice, and disappeared.

"You won't trust me, I know," said the prisoner, "but I want to beg you not to let the warden know of this. Nothing but three years' solitary now, and who can live through that? No, no, you'll let this go, won't you? You may believe me—you may indeed."

I felt shuddering along the passage announced the return of my companions. The prisoner endeavored to calm himself, and I put on an air of unconcern, which I think was very successful under the circumstances.

"Not shaved yet!" said the warden, astonished. "He had but knew how close a shave I had been through!"

"I have broken my razor," said Johnson, looking appealingly at me. "Sir, sir! I must have another."

"Very well," said the warden. "Will you wait?" he asked me.

"I don't mind," said I. "Another time will do for me."

So I wiped my face, we went on our way. Of course I was bound to tell the warden what had happened; but even in that great excitement which naturally followed so narrow an escape, I think I set forward all that I could in the poor fellow's favour.

The warden received the story with perfect composure, and assured me that he would act in such a manner as he thought the occasion needed. He condemned his own heedlessness in opening so evident an opportunity for guilt, with much more earnestness than I spoke of the event itself.

I could not resist visiting the wife of Johnson. I discovered that his story was true, and learned his real name. She was happy in her ignorance of his real condition. I sought to ascertain whether she was able to sustain herself until he should rejoin her, and then she told me that Mr.—, the warden of the prison, had also come to her, shown interest in her behalf, for which she could not well account, and assured her of his aid and protection in any need that might come. She was most grateful, but wondered why he had done so.

A few months ago the following newspaper paragraph appeared. It was much copied, and, I suppose, will be readily remembered:

"It is the custom at the prison in D— to permit prisoners whose terms are within a few weeks of expiration, to work outside the walls under the supervision of an officer. This privilege is, in most cases, gladly accepted. A few weeks ago, however, it was declined by a man who, as his time of freedom drew near, appeared more restless under his confinement than any others. On inquiry it was found that this prisoner had a wife and child living directly within view of the walls, and that for nearly three years he had seen her daily, she being all the while ignorant of his imprisonment, and supposing that her husband, who is a sailor, was at sea, on a long voyage. He was unwilling that, at the last moment the fact should be revealed to her; and, at his own request, he continued within the walls until his liberation, which took place last week. Excepting on one occasion, his conduct while in prison had been without blemish."

SAND, SOAP AND GLASS.

The difference between chemistry and mechanics can be very clearly explained by the changes produced on sand. Thus, if we take a piece of quartz and reduce it to powder it becomes sand. This is simply a mechanical change, the sand retaining of the same nature as it was prior to its being reduced to dust. Silica is the chemical name for quartz, and it is one of the most refractory substances known. It is perfectly insoluble in water, and neither sulphuric, hydrochloric nor nitric acid will dissolve it. It is also so infusible that it cannot be melted by any heat obtained by the blowpipe; and yet this substance, so hard, so infusible, can readily be converted into soap and made to melt like wax through the subtle agencies of chemistry. By taking home-sand and mixing with it a portion of caustic soda—carbonate of soda and lime—and submitting these substances to a very high heat in melting pots placed in a furnace, it fuses and becomes glass. In its molten state it is blown into bottles and vessels of every variety of form, and is also converted into sheets for window panes, and molded like clay for many other purposes.

Glass contains just a sufficient quantity of alkali to render it fusible, but not soluble, as neither water nor the three acids named dissolve it; indeed, glass is the substance commonly used for containing those very corrosive and for this purpose it is of incalculable value to the arts. The change produced by the soda on silica is a chemical one.

The molting of glass, when fused so as to change its form is a mechanical principle; the action of the soda upon the silica in conjunction with the high heat in the furnaces whereby the silica is made fusible is a chemical one, and the compound thus formed, which we call glass, is a silicate of soda.

A still more wonderful change than this is effected if an excess of caustic alkali is combined with the silica, as it then forms what is called "soluble glass," a substance which will dissolve by being boiled in water. Soluble glass (silicate of soda) is best formed by boiling finely subdivided sand in a very caustic lye under steam pressure, so as to subject the silica to the highest possible temperature, as this tends to form more concentrated solution of the silica. This is also a chemical change. The hard silica, formerly so insoluble, unites with the excess of alkali and really becomes a soap which is now used in Prussia and some other places for washing purposes. The silica takes the place of tallow, oil and grease, which are used for making common soap, and uniting with the alkali it becomes soluble in water, and may be used for washing as an inferior saponaceous compound. Such are some of the mysteries of chemistry.

Silica is one of the most common and useful substances in nature. It is the constituent of many rocks and composes most of the pebbles in gravel beds. Rock crystal is pure transparent quartz, and its name is derived from *kratos*, a Greek word signifying force. Silica is the base of a great number of precious stones, such as the carnelian and amethyst, which are bright red; also the opal. As we are entirely dependent upon silica for our present advancement in some of the arts. It forms the lenses of the telescopes by which such advances have been made in astronomy, and from it the lenses are made for our most improved system of lighthouse illumination.

Spectacles, those aids to the aged, are also formed of it, also our windows and looking glasses; in short, silica is applied to numberless purposes in all the philosophical, useful and elegant arts. The "little grains of sand" have become mighty agents in the hands of cultivated men. It is said, however, that the ancients were acquainted with the art of making malleable glass—an art which, if ever existed, can be re-discovered—S. American.

The *Pictorial Standard* acknowledges the receipt of a letter describing the search for Capt. Kidd's money, supposed to be buried at Oak Island, Chester. The principal points referred to by the writer are, that two millions of money is supposed to be buried there at a depth of 100 feet; that at various times within the last 80 years, some seven or eight pits have been sunk; that substance which could only be placed there by human agency, such as sawed plank, oak staves, &c., were found at various depths; that the water always breaks in upon them when they come near the treasure; that they have discovered a drain from the shore, which leads into the pit; that they bored

through what was thought to be the money; that the click of the cash was actually perceptible, but unfortunately they did not succeed in bringing up any of it.

FROM THE STATES.

NEW YORK, Nov. 27th.

Report says that a scouting party from Gen. Porter's division has been driven back by a rebel force, near Vienna, with considerable loss.

Port Pickens, at the recent engagement was breached, but the ships of war were obliged to haul off. The rebels claim that an advance party under Gen. Sherman's command had been forced to retire in the vicinity of Beaufort, with much loss.

Arrangements are being made to ship salt to Mexican ports, and thence take it overland through Texas. The rebels are suffering severely for want of this article.

Despatch from Washington says that McClellan is strongly urged to give battle to the enemy on the Potomac.

Great mortality among the cavalry—dents reach as high as four and five per day.

The *New Brunswick*, of the 28th, says: "A friend, who had just returned to New York from Washington and Baltimore, writes under date of the 20th, inst., from which we give extracts:

"I thought I would take a trip to Alexandria for which purpose, along with a friend, I strolled as far as the long bridge, from whence the steamer leaves every hour; but alas! I had calculated without my host. We were stopped for want of passports. What a delightful free country! We however took better care afterwards, of which I shall again inform you."

Now for the Great Victory at Beaufort. Beaufort has not been taken. The first bulletins gave glowing accounts of the success of the Great Expedition. Immense placards, with enormous headings, announced the wonderful success. At last there came a bulletin rather more minute in size, as follows:

"Federal force attacked by the rebels; Gen. Lee making active preparations to defend Beaufort; Gen. Sherman not advancing on Beaufort; Federals ordered not to advance on Charleston."

The truth is, the paper that will give the most wonderful news is the most popular. The American people will swallow anything and everything.

Now for a few facts. The expedition cost the country over \$500,000, besides the Military. After sailing, four vessels put back badly disabled. The Ocean Express, 1000 tons, laden with guns, ammunition, and Government Stores, is a total wreck. The Winfield Scott with 450 troops on board, foundered. Two other transports have not been heard from, besides some smaller craft. Two Gun boats are on shore in Beaufort river. The Confederates have captured 500 prisoners from the wrecks of the Federal Ships.

And what are the facts of all these magnificent victories which the Northerners say are the most brilliant and for which, Commodore Dupont will be made an Admiral? Two mud forts each side of Fort Royal, harbored called Walker and Beaufort, have been taken. Fort Walker is on Hilton Island, which is a sand bank, twelve miles from Beaufort; and if they succeed in effecting a landing in the mainland they will have to travel that distance through swamps and quagmires, where it is hardly possible for individuals to pick their way, let alone—horses, artillery and munitions of war.

Fort Beaufort is on the opposite side, on an island; it is impossible to reach Beaufort from this Fort without going up Beaufort river; in attempting which, two gun boats have run ashore. The river is only eight feet deep, and spilt words some distance below the Town. The Federals up to this time have not landed a single soldier upon the mainland. The magnificent capture of this expedition have been the capture of two mud forts! The base of future operations in South Carolina are two islands, sand banks! Hatters in fact have been deserted! The officers of the French ship-of-war *Procyon* speak in the highest terms of their treatment by the Southerners, and are so dissatisfied with that of the Federals, that they have refused to go to a hotel in New York and have accepted the invitation of the Captain of the R. M. Steamer *Doris*.

THE LAST OF WOOD?

Halloo, there; how do you sell wood? By the cord. "How long has it been cut?" "Four feet."

"How dumb! I mean how long has it been since you cut it?" "No longer than it is now."

The best doctor for a sick woman? A new dress.

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