

ether and a glass spirit-lamp. Five minutes use of this will entirely remove the smell of bilge-water, or other disagreeable odor from the cabin; but unless the cause is removed, the lamp may require to be frequently used. Try it.

R. H. A.

Baltimore, Md., June, 1859.

[We are much obliged to our correspondent for the information contained in his letter. No method could be more simple for disinfecting ships, hospitals, and households, but at the same time, the hint contained in the last clause of the letter must not be forgotten.

#### LOCOMOTIVE BOILERS---POST OFFICE MIS-MANAGEMENT.

MESSRS. EDITORS:—I sincerely wish that some of your numerous readers connected with railroad engineering could explain the cause of the choking-up of the water-passage in a locomotive boiler at the one side when hard or limestone water is used. Several cases of this kind have lately occurred here, and one on an engine which had been running only about nine months. The termination of the passage through the upper or check valve became diminished to about three-eighths of an inch, and caused the bursting of a cast-iron air-chamber half-an-inch thick; it being on the right or working side of the engine, the left-hand pump being seldom used. One would naturally suppose that the passage from the pump which is almost in constant use would be most likely kept open, but it is not so, and it would be very gratifying to know the reason of this.

There is another question, and one of a very serious character, which I wish to bring to the notice of those who can remedy the evil, namely, the mismanagement of the Post-office in the safe and prompt delivery of the SCIENTIFIC AMERICAN; other papers, however, are subject to the same trouble. Scarcely a week passes but one or more of your subscribers in this place are minus of their papers, while on other occasions, papers belonging to persons residing in other places are received; clearly showing that the fault is in the Post-office. It is very annoying to be thus disappointed, and to hear the remark often made angrily, "what has become of our paper this week?"

A new-comer in this place called frequently, but vainly at the Post-office for letters and papers, but found none. At last he became clamorous, and demanded a search to be made for them, when lo! a number were found snugly situated on an upper shelf. His name not being familiar to those who assist the postmaster in his duties, the owner came very near losing both papers and letters.

ENGINEER.

Knoxville, Tenn., July, 1859.

[To the inquiry of our correspondent in regard to the incrustation forming on the interior of the water-pipe in the boiler, we can only say that hard water forms incrustations in all metal pipes, even when it is moving at a considerable velocity. The amount of scale formed is proportional to the amount of water passing through, especially if aided by heat. We advise all our railroad companies to use nothing but soft water for their locomotives; and if they cannot obtain a sufficient supply from springs or creeks, let them erect cisterns at the stations to catch rain water for that purpose.

The case of mismanagement in the Post-office we refer to the attention of Postmaster-general Holt. We believe he will not allow it to pass without inquiry. We are confident that the general circulation of many newspapers is greatly affected in every place where there is an unfaithful or incompetent person in charge of the Post-office, and we have therefore a just cause of complaint as well as our subscriber.—EDS.

PUMP FOR AUSTRALIA.—In No. 35 of Volume XIV. of the SCIENTIFIC AMERICAN, we published a letter from Messrs. Fisher, Ricard & Co., Melbourne, Australia, in reference to a pump for deep mining. We have since learned that this firm can be addressed at No. 56 South-street, New York.

A HUMANE INVENTION.—It is announced that an inventive Yankee has produced an apparatus which he claims is a cure for snoring. He fastens upon the mouth a gutta-percha tube, leading to the tympanum of the ear. Whenever the snorer snores, he himself receives the first impression, finds how disagreeable it is, and of course reforms.

#### DEATH OF A PROMINENT INVENTOR.

[Communicated.]

Walter Hunt, who has been an originator for about fifty years, has been at last relieved from that shell of earth and has passed to the future, where the annoyances of human strife can no longer torment the head or heart. From early childhood he exhibited signs which told that his destiny was that he should be a teacher, an almoner to the grieved ones, rather than a servant of self. His earliest practical workings were in mechanical movements, the breech-loading cannon being one; from this he, after much experiment, succeeded in making the breech-loading many-chambered pistol, usually known as the "revolver" at this day, and upon which others, by dint of perseverance have reaped the reward which justly belonged to him. The experiments in endeavors to control the lightning-flash of electricity so far back as 1833, as a motive-power, were as nearly successful as the then known circumstances would admit, and to this day have but slightly advanced. At about the same time, on the veryspot where the Sun Office now stands, he experimented with a very crude machine for spinning flax, with such success that by imitations and innovations it has in other hands become one of the most valuable machines in that department of treating fabrics.

That he was the first inventor of the sewing-machine there is no doubt, inasmuch as in a contest with Howe, during the term of Judge Mason as Commissioner of Patents, he opened an interference against Howe, but unfortunately he had sold the invention to a Mr. Arrow-smith, therefore, the Commissioner decided as follows, in substance, viz: "Walter Hunt was the original and first inventor of the sewing-machine, but inasmuch as he had sold all his right, title and interest, and neither himself nor his relations had prosecuted the business to the advantage of the public, the community had not been benefited, and that Howe by persevering had made it valuable, and therefore must be sustained."

While I have not space to describe it, it is certain that his machine for forging wrought-nails has never yet been superseded, although many patents have been subsequently granted in hopes of so doing. His machine for cutting brads from the sheet-metal was exhibited at the American Institute Fair in 1835, at Niblo's Garden, simultaneously with his machine for punching leather and filling the holes with wire-plugs, so that the leather should support the metal, thus producing an iron and metal surface for a durable sole of a shoe or boot. Prior to this time he had experimented in preparing concrete blocks for the purpose of making docks, &c., which would be permanently lasting, and one of his latest griefs was (as expressed to the writer), that more than twenty years ago he explained this plan of building docks to Peter Cooper, who but a few months ago put it before the public with a view that it would appear to have emanated from himself. Another effort was the molding paper-boxes directly from the pulp, by having a female-mold into which a corresponding male-punch or piston would so nearly fit as to form the boxes at one operation, thus making a box per second. The vapor-bath was, as a medical instrument, extremely valuable at the time he introduced it.

The hollow rifle-ball having a conical-shape, with a sharp point, and the charge within the ball, was a beautiful chemical and mechanical discovery, yet it met no favor until Minie, in France, had adopted it to use, and in consequence he received the credit which belonged to Walter Hunt. Not content with his former experiments in fire-arms, he to the very latest hour continued to exercise his brain in relation to this class of instruments. The latest and probably the best of his improvements in this line was to arrange a new priming which would always be safe, it being water-proof and arranged in sticks, so that as the hammer came down to discharge the piece it would cut off a little piece, and the final closing of the hammer would cause the little piece to explode, thus igniting the powder or the charge in the ball, which would cause the displacement of the ball so that it would go to the intended destination. He also had an invention for reducing tobacco stems to a pulp, after which they could be rolled into shuts like paper, and thus formed into the most elegant segars. It was in his early days that he suggested the roller as a substitute for the old-fashioned balls for inking the form on the hand printing-presses, this being before power-presses had come into use. He was successful in preparing a paper-pulp which, when rolled on to or combined with the coarsest cotton, would

appear like the finest linen for collars, bosoms, &c. His several medicines, of which his life-invigorating cordial is one, have proved extremely valuable.

Although what the writer has here enumerated are scarce a tithe of his inventions, which covered every branch of mechanical art, chemistry, and science, yet fearing to become tedious I will be content that there is sufficient for the present occasion and purposes.

Walter Hunt, like most inventors, devoted his life more to his friends than himself; the writer has frequently seen him give his last cent to the poor when he knew not where the next was to be found for himself; and the succoring of families in distress was his most holy thought; it was thus that all who knew, knew but to love him, no friend in need could want when he was supplied. In early life he became a free and accepted Mason, which undoubtedly contributed to his disposition to be philanthropic. He struggled with that monster, the dollar, all his life, in hopes of mastering it, but his almost numberless experiments kept him always comparatively poor. At the time of his death he was engaged in experiments which seemed to promise a rich reward for his past labors, but his long and ardent devotion, by night as well as by day, resulted in an attack of pneumonia, which in four days closed his earthly existence at the age of sixty-three years, thus parting the spirit from the house of clay that it might be wafted to the realms of bliss.

J. L. KINGSLEY.

[Our correspondent, takes the unqualified position that Walter Hunt was the original inventor of the sewing-machine. When this assertion appeared in the Tribune, Mr. Howe denied the fact, and quoted from the decision of Judge Sprague to sustain his position.

#### BARKING FRUIT TREES.

We have received several letters on this subject, having been called out by the article on page 328, of Volume XIV., SCIENTIFIC AMERICAN, in which it is stated that if the entire bark to the wood of the trunk is removed, it would be fatal to the life of trees. In reference to this opinion, Mr. John Gill, of Patmos, Ind., says: "Paradoxical as it may seem, if apple-trees are skinned after the sap is well up and the leaves developed, they will form a new bark and flourish afterwards as well as if not barked, and perhaps better. This is frequently done in the West to cure what is termed bitter-rot; a disease that attacks apples with small black spots, which run into the core in a conical-shape, and which are intensely bitter. How barking would operate on other trees I cannot say, but I saw this done twenty-five years ago."

In another letter on this subject from Mr. J. B. Sawyer, of Manchester, N. H., he says: "It is doubtless true that, in eleven months out of the twelve, it will kill a tree to strip it of its bark, but there are a few days in the month of June when many kinds of exogenous trees may be deprived of their bark (including even the liber, or inner coat), without causing the death of the tree. By a beautiful provision of nature the cambium, or jelly-like substance, which is ordinarily developed every year into a new layer of wood, will, if not injured by the operation of peeling, or by a too scorching sunshine, become a new bark. It will be very smooth and tender for a few years, in fact much like the bark on the young shoots of the same tree. It is possible that such a new and healthy bark may, in a few years, more than compensate a tree for the shock which such an unnatural operation must produce. This phenomenon may often be observed where a tree has been accidentally deprived of a portion of its bark at this season of the year."

We have seen old decaying pear and apple-trees renovated by scraping off the outside bark, and leaving a thin rim adhering to the wood, which was washed with soap-suds, containing a little sulphur. The bitter-rot in western apple-trees, we think, may be cured by such an operation. Although, according to our correspondents, some trees at certain periods of the year may be denuded of their entire bark to the wood, yet it may be truly stated that this operation is one which is likely to be fatal to the life of the tree, and is not therefore to be recommended for general practice.

BOUND VOLUME.—The SCIENTIFIC AMERICAN in its present form will make a very handsome volume at the end of the year, and we counsel all to preserve their numbers in a cleanly condition for that purpose.