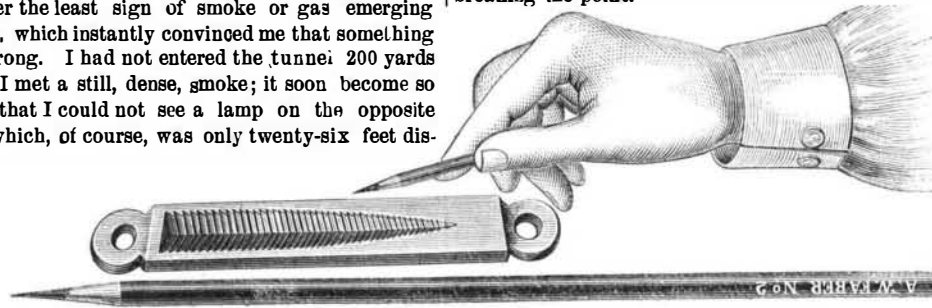


Mont Cenis Tunnel.

In a communication from Pico Mulera, Italy, dated Jan. 4th, Mr. H. Hoskings writes to the London *Journal*: "The mortality among the workmen employed in the Mont Cenis Tunnel is so great, in consequence of powder smoke and bad ventilation, that they have refused to work any more. The work is now at a stand still;" and the statement is especially interesting, from the precise manner in which it confirms the opinion expressed in the *Mining Journal* of Jan. 2, 1864, by our esteemed correspondent Mr. Nicolas Ennor, in the account of his visit to the tunnel. He then stated—"I next turn to the air department. The moment I came to the tunnel I looked to its mouth, and to my surprise I could not discover the least sign of smoke or gas emerging from it, which instantly convinced me that something was wrong. I had not entered the tunnel 200 yards before I met a still, dense, smoke; it soon became so dense that I could not see a lamp on the opposite side, which, of course, was only twenty-six feet dis-

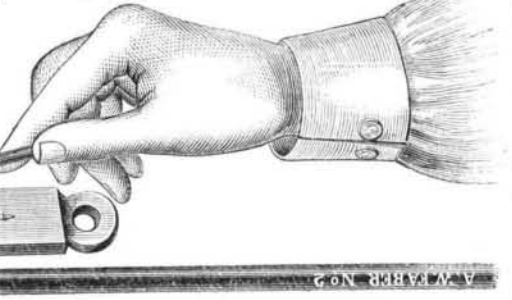


tant. The horses and wagons passed but I could not see them. This continued up to within 100 yards of the end, where a light could be seen for twenty yards. Here air was liberated sufficiently to support the men with the machine, but as it passed back, where the sidemen were at work, it was all devoured by the men and lamps. I took the mallet to strike the man's borer, to say I had helped to drive the tunnel, but I could not see the head of it; so I threw down the mallet and took a pick and worked out a little. I now leave it for practical men to say what they think of working in such a place as this, and they are now in only three-quarters of a mile, and have nearly three miles more to drive. I was in about an hour, and when I came out I spit as black as though I had dined on lampblack—so did the gentlemen who accompanied me. I think I have had over 55 years' actual mine practice, and I have come to the conclusion that this work will never be accomplished without other means than the present be adopted. I am satisfied that there is nothing deserving or eulogizing to the French or Italian engineering for what is doing to carry out this undertaking, notwithstanding that they have an abundance of water-power at command, and machinery that, I should judge from a momentary glance, cost £40,000. I will not, however, stop here to describe the machinery already erected." Mr. Ennor contended that there was not a quarter air enough, and a man without that would decline and die; but beyond this he proposed a remedy. He said that there is water-power sufficient in the valley to drive in a 3-foot tube full of compressed air; this would drive out all the smoke and contaminated air, or, if exhausted, by this tube bringing out the foul air, and let the fresh supply go in through the tunnel. The same machinery could be tried each way, to prove which is the most effective. The work could not go on well till there was an effective circulating current in and out. He next suggested as a second means to bring a large tube down from the mountain top, and carry it into the tunnel end. This would produce a rapid current, or, if this be found sufficient, put a furnace to it, as used in coal mines. Air in that situation can be carried, he said, to an unlimited extent. The first thing to be looked after is to have a circulating current of air—this attained, the tunnel would go through, but not otherwise.

A TERRIBLE disease is raging in some parts of Germany. An insect called *trichina* infests pork, and eaters of this flesh uncooked, or only partially cooked, take it into the system, where it speedily causes death. The sufferings of the patients are most horrible. But one case is known to have occurred in this country—that of a young lady at Detroit—but several instances where parties have been supposed poisoned by eating ham were from this insect. Avoid raw or half-raw pork, such as Bologna sausage.

SHAVER'S PATENT PENCIL SHARPENER.

The accompanying engraving represents a convenient, durable, and desirable pencil pointer, just introduced into the market. It is made from the best cast steel, hardened, tempered, and finely polished. The file groove is finely cut at its small end for pointing lead pencils after the wood has been cut away, or more particularly adapted to pointing the leads of any of the well-known extension or propelling pencils, which do not require the cutting away of the wood, but can be easily adjusted and brought up to any kind of a point to suit the user. The wide end of the groove is coarser cut, which is intended for sharpening slate pencils, which it does quickly and without breaking the point.

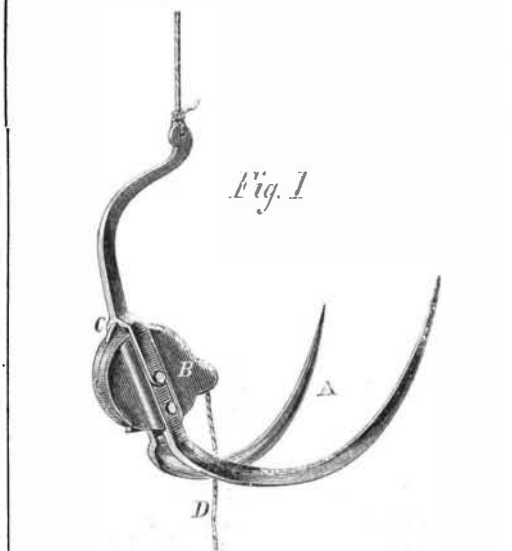


This pencil sharpener is adapted for the counting-room, artist's studio, and is especially useful in the school room, as it will relieve the teacher from that oft-repeated request, "Please sharpen my pencil." We are informed that this article is already in the hands of the largest wholesale and jobbing stationers of New York and other large cities, and, no doubt, will soon find its way into banks, insurance, and other offices, academies, and schools throughout the United States. They are sold at 25 cents each; a liberal discount to the trade.

This invention is covered by patents in this country and in England and France. For further particulars address the inventor, A. G. Shaver, New Haven, Conn.

REYNOLDS'S HAY FORK.

This fork is one that has lately been introduced at the West, where it is said to have proved satisfactory in its operation and otherwise become popular. In

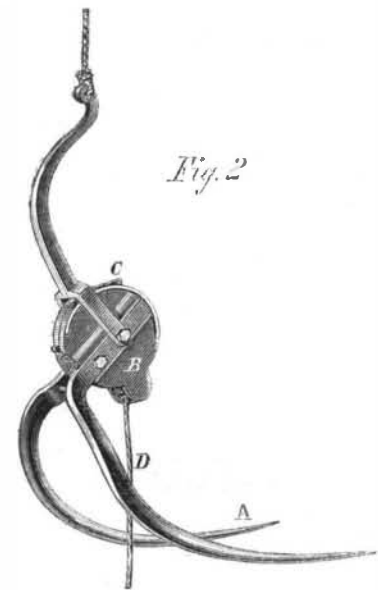


construction it is quite simple, having two tines, A, connected to a circular shank, B, which contains the tripping apparatus to discharge the load. This is simply a latch, C, so arranged that, by pulling a line, D, the latch is released and the load discharged—the parts reconnecting themselves again in the act of re-loading the fork.

This implement is made of iron and has only two tines, but these are found quite as efficient as any greater number. The fork can be used for stacking as well as for loading, and the inventor sends directions to do this work in his circulars. The weight of the fork is twenty-five pounds, and it is sold very low. Many certificates of its utility have been shown us, but we cannot publish them here. The proprietor wishes to sell rights.

It was patented through the Scientific American

Patent Agency on October 18, 1864. For further in-



formation address the patentee, E. Reynolds, Hartwellville, Mich.

Extraordinary Discoveries of Oil.

The Pithole region, where oil has been found in large quantities, has lately been the scene of extraordinary excitement. The *Record*, published at that place, says:—

The whole ground seems saturated with oil. One man dug a hole in the ground about a foot deep, and in a few minutes got a pailful of oil for his trouble. The ground is now being riddled with shallow holes in which large quantities of oil ooze up, and the scene forcibly reminds us of gold digging.

At one of the springs belonging to the Buffalo House the proprietor had gathered four barrels of oil with a tin dipper, and there are many others who have been equally fortunate.

Oil was found in a great many cellars yesterday. Mr. Bernard Morahan filled a large washtub with oil from his water-pipe; a number of others have done the same.

A well belonging to the Confer Hotel (late Hubbs's House) has been found to have oil on it; another oil spring has been found in the rear of Fifth street, so that we may presume that every man will be able to dig his own oil before long.

Many ludicrous incidents are narrated of the manner in which some of them took their sudden accession of fortune.

Yesterday morning, men, women and boys could be seen with tin pails, wooden pails, teakettles, etc., in their hands, vainly searching for pure water. Oil might buy coffee and tea, but not make it, so that urchins who had to be water-carriers appeared to think there might be too much of a good thing, even if it is oil! Nor are they alone in their grief, for a cow walked up to her accustomed watering place smelt the oil, and evidently thought petroleum would make butter taste bad.

At the first discovery of the wells the excitement began to increase, and a man who has heard of the various fractions used in the oil trade, offered to pump all day for one-thirty-seventh of the oil; others were more selfish, for they would pump all the time but wanted half the oil, and were willing to take the washerwoman into the bargain.

An Irishman, who had a small spring, was highly elated at the turn fortune was taking. Said he, "Yesterday, I wasn't worth a cent, and, be jabers, to-day I'm worth thousands upon thousands."

GAS PURIFICATION.—Experiments are being now made at the Crystal Palace District, and other gas-works, to test the practical value of a recent discovery by Dr. Letheby, who, besides his many other engagements, is now consulting engineer to several gas companies. He had found that the waste material of the soda manufacture, and known as "soda waste," is unexpectedly effective in absorbing the sulphur compounds in crude coal gas, and especially the obstinate bisulphide of carbon. The soda waste is employed in the purifiers in layers, as much as oxide of iron is now generally employed to arrest the sulphureted hydrogen,