

**Improved Corpse Preserver.**

Many plans have been proposed to prevent decomposition of the human body after death; of these methods the preservation by cold is the simplest, and for that reason the most popular. A convenient arrangement for this object is herewith illustrated, and may be easily comprehended by reference to the letters.

It consists of a wooden box or case, A, lined with some metallic substance, resting upon legs, so attached that they can be quickly removed if desirable. This box forms the body chamber and should be made so as to exclude the air as much as possible.

The chamber, A, is fitted with a door at one end to receive the cooling board, C; upon this the corpse is laid out, the head piece, a, of said board being provided with staples, b, to retain a band, c, passing around the jaw of the deceased, and thus keep it closed. It will be seen that the door, a<sup>2</sup>, is beveled on its faces; these faces are lined with felt or india rubber, so that when it is closed and kept up to its place, a perfectly air-tight joint is made. The walls of the head-piece are double, and a filling of charcoal should be interposed as a disinfectant.

At the top of the chamber is the ice-box, D, and air chamber, E; these are constructed of thin sheet metal, and so placed that the influence of the cold will act principally upon the parts of the corpse most liable to speedy decay, namely, the bowels and chest. The small pipe, d, runs into the refrigerator and discharges the waste water from thence into any common pail or tub. The ice-box and chamber may be made with double walls which can be left in communication with the air space of the body chamber. A continuous circulation is at all times thus maintained.

This apparatus may be made in several sections if desired, so that it can be put up in any place where the doors will not allow of its entrance; convenient access can also be had to view the deceased at all times.

The patent for this invention was procured through the Scientific American Patent Agency, Oct. 28, 1862, and further information in relation to it may be obtained by addressing Lewis D. Bunn, of Morristown, N. J.

**WHY A LAMP WICK DOES NOT BURN.**

If we take a piece of lamp wicking and place it in the flame of a lamp it is immediately consumed, but the same kind of wicking placed in the lamp and lighted at the top, lasts the whole evening, and if the lamp is supplied with alcohol the wick is not even charred. The cause of this was a perfect mystery until a hundred years ago, when Dr. Black, of Glasgow, discovered the principle of latent heat. As the oil or the alcohol comes near the flame it is evaporated, and by this change in its form a large quantity of heat is destroyed, or rather is rendered latent, so that it does not manifest itself in any way. It requires a great quantity of heat to change a liquid into vapor, so that evaporation always cools surrounding objects. The wick is cooled by the evaporation of the oil or alcohol below the temperature at which it will combine with oxygen—in other words, below the temperature at which it will burn.

Dr. Black's discovery suggested to Watt his great improvement in the steam engine; condensing the steam in a separate vessel from the cylinder. Watt attended Dr. Black's lectures.

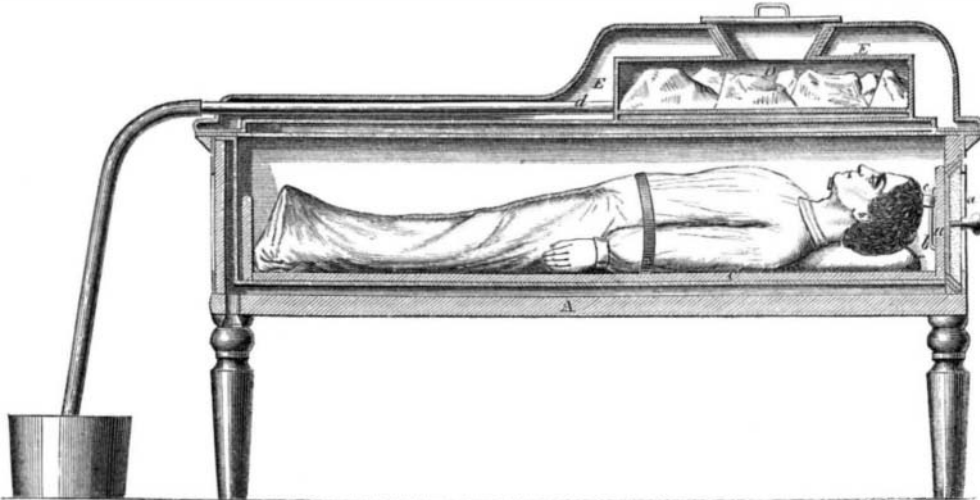
**A Word about Military Matters.**

It does not yet appear to be a part of the Government programme to cut off railway communication between the city of Richmond, Va., and the more southern States. Not one well-concerted effort has yet been made to accomplish this great undertaking—one which, if successful, would do more damage

to the enemy than a battle and a victory for the Federal army. To thus isolate Richmond would constitute one of the most splendid achievements of modern warfare. It is said that the Federal army in Western Virginia is preparing to go into winter quarters at the Gauley river, no enemy being near at hand either to annoy or fight. Now, why cannot this very army work its way down to the railway at some point and destroy it? There are, doubtless, obstacles to this movement; but "wherever there's a will there's a way," and it seems to us that if our Government or the commanding officers were in earnest about this matter, a great deal more could be accomplished. We are tired of those shoulder-strap gentry who do nothing. It is said that General Banks (who is now in this city, preparing a most formidable expedition)

either cider or wine manufacture; the juice then flows, by the combined operation of pressing and grinding, in a continuous stream at the rate of nearly a barrel an hour into the tub below. This press can be adapted to a great variety of uses, and seems one of those universal machines which the public need. The family cheese can, by its pressing attentions, be solidified and condensed, the lard extracted from the scraps, the wool crowded into close quarters, and all farm produce that requires any operation of this kind can be compressed with ease. Clothes may be squeezed dry, herbs cured in masses, in fact, the range of its uses seems illimitable. The machine is made wholly of iron, occupies but little room, and weighs about 160 pounds; a stout boy can readily work it. It has been used in a great number of cases, and the inventor assures us that he sold over 100 of them in two weeks, and those who have used them are well pleased with their performances.

The patent for this mill and press was procured through the Scientific American Patent Agency, and an application is now pending for other improvements.—Any further information concerning the sale of the patent or the price of the mill can be obtained from the manufacturer, Mr. C. B. Hutchinson, at Auburn, N. Y.

**BUNN'S CORPSE PRESERVER.**

is pestered continually by applicants for "light and comfortable" situations on his staff—situations where little labor and no risks are required; but the applicants have no objection to an unlimited amount of pay. Gen. Banks has had too much experience to be caught by such fellows. He well knows that the energies of the whole nation are now being wasted needlessly by such leeches. We are glad to know that Gen. Halleck has determined to dismiss them from the service in disgrace and publish their names.

**HUTCHINSON'S FAMILY CIDER MILL.**

In our issue of November 22d we published a request for a family cider or wine mill, one that should



on demand give down the rich juice of whatever fruit was submitted to its embrace. No sooner had our call gone forth than the response to it came in the shape of the article itself. Mr. C. B. Hutchinson, of Auburn, N. Y., has a combined mill and press, of this sort. We have seen it at work and can give personal testimony as to its efficiency, having had it in operation at our office. All the labor consists in turning the handle to grind the apples into pomace or the grapes into must, as it is applied to

THE HORSFALL GUN.—Several inquiries having been made respecting what is called the "Horsfall gun," which first smashed the great iron target in pieces in England, we would state that it is the largest gun yet constructed in Britain, and in some respects, it is the most wonderful piece of ordnance ever produced. It has a bore 13 inches in diameter, and the gun weighs four tons. It is made of wrought iron, and was forged solid at the Mersey Steel and Iron Works, Liverpool, England, and is entirely different from what are called "built-up guns." It is seven years since it was first tried, and upward of 8,000 lbs. of powder have been blown out of it, but the bore appears to be uninjured.

TINNING METALLIC COPPER.—W. Wollweber, of Frankfort (*Archiv. der Pharmacie*, July, 1862), recommends for still-worms copper tubes tinned inside in the following manner:—To a solution of Rochelle salts a solution of salts of tin is added; a precipitate of stannous tartrate is formed, which is washed and then dissolved in caustic lye. The copper tube, which has first been rinsed with sulphuric acid and then washed, is then filled with the alkaline solution, warmed a little, and touched with a tin rod which causes the deposition of a coat of metallic tin.

BURSTING OF A FLY WHEEL.—A large fly wheel, 20 feet in diameter, at the rolling mill of Rowland & Co., Philadelphia, lately burst while moving at the high velocity of 200 revolutions per minute. It was used on machinery for rolling steel plate for saws, springs, &c. A portion of the wheel passed up through the roof of the building. One young man was killed. The machinery connected with it was broken to pieces before the engine could be stopped. The velocity of a wheel twenty feet in diameter, making 200 revolutions per minute, is over 140 miles per hour.

DAHLGREN AND RODMAN GUNS.—We notice that all our daily papers call the new 15-inch navy guns "Dahlgrens." They are really "Rodman" guns, because they are cooled upon the principle invented by Capt. Rodman, as fully explained by us in our description of the Fort Pitt Works, and the manufacture of those guns, on page 393, Vol. VI. (new series), SCIENTIFIC AMERICAN.

DRY sheets of photographic paper are now used by traveling artists for taking pictures of scenery. They may be prepared for months before they are used, and may be carried to any part of the world.