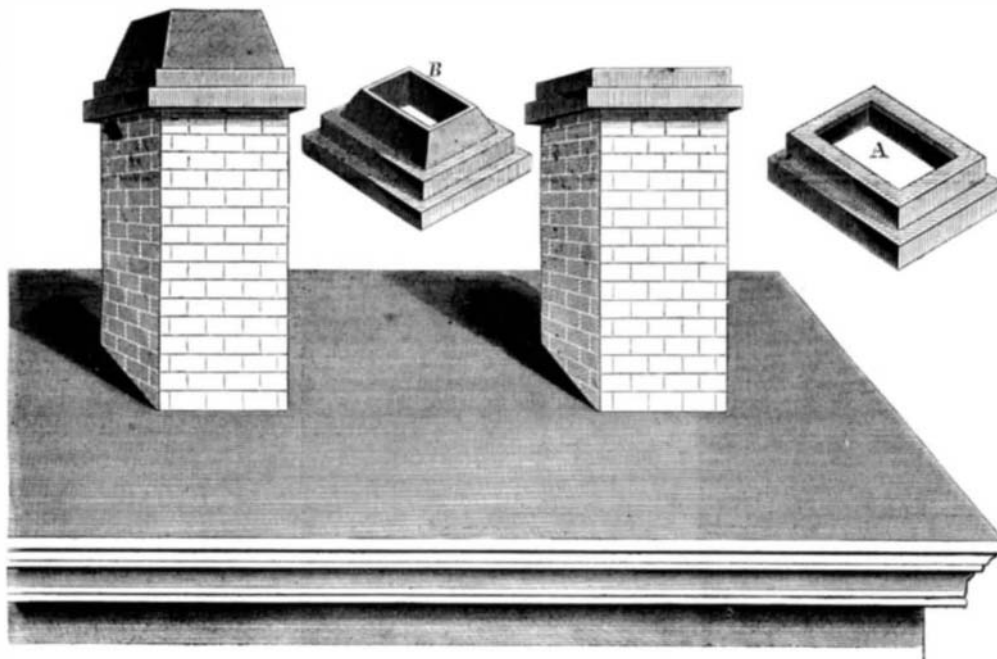


Improved Chimney Pot and Cap.

The engravings published herewith represent a new attachment for chimneys which is designed to prevent the evil of smoking, and to protect the chimney itself from the action of the weather. The material of which this cap is composed is potter's clay baked and glazed, and it is set in mortar or cement on the chimney top itself. When in position the cap, A, rests upon the brick-work of the chimney, and the other part, B, which tapers upward, is set on the cap, A. The inventors claim that by this arrangement the chimney is prevented from smoking and that the structure will last much longer than without this protection. Also, that it increases the draft and is a desirable and ornamental addition to the building, giving a neat and finished appearance. The pot and cap may be applied either separately or together; or both attachments can be made in one piece if desired, and any required dimensions can be made to order.

The entire patent or State, county or town rights are for sale. For further information address the inventors, Alonzo L. Sweet, at Norwich, Conn., by whom it was patented through the Scientific American Patent Agency Feb. 16, 1864. For further information address the inventor as above.



SWEET'S CHIMNEY POT AND CAP.

committees, who, however, concurred in the propriety of trying the experiment, for the sake of exploding and putting an end to the theory forever. One would think, however, that the extensive and expensive experience the Government have had of the value of these new theories would, by this time have given them sufficient confidence to say 'No' to ex-

periments with any further crotchets, except at the inventor's own expense."

PATENT REFLECTOR LANTERN.

This ingeniously-arranged lantern is intended for burning coal-oils without a chimney; the formation



of the lantern itself being such that it constitutes a chimney and creates a draught for the maintenance of the light without employing the glass tubes generally used for that purpose, thus obviating the trouble and expense which they cause. The construction of this

lantern is such that it will, no doubt, be extremely popular; it can be swung around or carried in strong draughts without extinguishing the flame; it is entirely without solder in the upper part, making it much more durable, and it has the glass sides so arranged that they are much less liable to break than others; when they are broken an ordinary glazier can replace them. This lantern is also fitted with convex reflectors, A and B, which serve to increase the light and also afford a protection to the eyes of the person carrying it. The flame is regulated from the outside by the button, C, and the top is hinged at D, to the lantern so that the oil may be poured in at E; there is also a device over the wick at E, which causes the flame to burn brightly and steadily without a chimney, even if the outer case be removed. This burner is well adapted for hand lamps, and will be furnished to dealers separately if desired. The lantern is convenient in form and size for general use. Patented April 28, 1863, through the Scientific American Patent Agency. Further information can be had by ad-

ressing Archer & Pancoast, 9, 11, and 13 Mercer street, New York.

The Iron-clad "Ironsides."

We have been furnished, by an eminent naval officer, with the following table, exhibiting the performances and the capacity for resistance of the *Ironsides* frigate in Charleston harbor—proving her by the severest and most continued hostile tests, to be the most perfectly armored vessel in the world. It will be perceived that she was struck by the shots of the enemy 241 times, one hundred and forty of which thundered against her in the short period of two days; but notwithstanding, she has passed through the terrible ordeal without having sustained any serious damage, and with the loss of only one man killed. This is a most satisfactory evidence of her great powers of endurance. The table, we may promise, is entirely authentic, and the information contained in it has, we believe, never before been made public. It is as follows:—

DATE.	SHOTS FIRED.	TIMES STRUCK.
April 7, 1863.....	8 rounds.	Several.
July 18.....	805 rounds.	10 times.
July 20.....	168 rounds.	13 times.
July 24.....	220 rounds.	12 times.
July 29.....	210 rounds.	2 times.
July 30.....	366 rounds.	3 times.
Aug. 17.....	428 rounds.	30 times.
Aug. 18.....	158 rounds.	Not struck.
Aug. 19.....	64 rounds.	Not struck.
Aug. 20.....	168 rounds.	Not struck.
Aug. 21.....	114 rounds.	1 time.
Aug. 22.....	182 rounds.	Not struck.
Aug. 23.....	88 rounds.	5 times.
Sept. 2.....	50 rounds.	7 times.
Sept. 5.....	504 rounds.	15 times.
Sept. 6.....	238 rounds.	3 times.
Sept. 7.....	152 rounds.	50 times.
Sept. 8.....	488 rounds.	90 times.
Total.....	4,561 rounds.	241 times struck.

[Newark Advertiser.]

[The items wanting to make the account complete are omitted. What was the range, the size, and velocity of the shot?—Eds.]

WATER FOR JERUSALEM.—It is proposed by a company to construct sewers, and supply water conduits in the city of Jerusalem. There are still evidences remaining that water was once had there in great abundance. The great reservoir beneath the Temple, 736 feet in circuit and 42 in depth, held two millions of gallons, and there were upwards of thirty smaller reservoirs connected with it. The Pool of Bethesda, now dry, contained 21,874,742 gallons; and the Pools of Solomon, about seven miles distant from the city, held 50,136,320.

Experiment on a Wool Target.

The London Times, in an account of experiments at Shoeburyness, has the following:—

"Another theoretical novelty in the way of targets was tested at this practice-ground on Wednesday week, and, like most of the extraordinary novelties that are brought there, was proved to be utterly worthless in two shots. The target was one composed of compressed wool, made after Mr. Nasmyth's plan; that gentleman and a very large number of others also, entertaining a confident opinion that a good thickness of wool, when pressed tight, would offer an amount of resistance to shot which, if not sufficient to keep it out altogether, was, at least, certain to be enough to justify the Government in making experimental inquiries on the subject. We do not know, even if the discovery had been successful, how it was proposed to utilize it—how, for instance, to recoat our ironsides with 10 or 12 feet of pressed wool, or how to apply so bulky and cumbrous an appliance in any way. Fortunately there is no necessity for considering such embarrassing speculations now, inasmuch as the experiment of Wednesday proved the wool rather more permeable to shot than almost any other novelty that has yet been fired at. A very few words is sufficient to tell the result. The target, if we may so call it, was a wrought iron tube, like a boiler or iron funnel, open at both ends, 10 feet in diameter and about 11 feet long. The wool part of the target was constructed by tilting this on end and filling it with wool as tightly as men could trample it down till the cylinder was full. It was then laid on its side fronting the gun, so as to present the appearance of a large white circular target or drum, 10 feet in diameter, and 11 feet thick of solid wood.

"The first shot was fired from the Armstrong 100-pounder, with a 10-lb. charge, and this not only passed through the target from end to end, but buried itself in the earth behind. A second shot was fired from the 68-pounder, with the usual service charge, and this also went through, burying itself in the bank, and as a means of resistance the target was such a palpable and utter failure that even Mr. Nasmyth was satisfied with these two shots, and concurred in the uselessness of firing any more. The result exactly fulfilled the anticipations of the iron-plate and ordnance