Expose of Paine's Light.

This light has received, it seems, a most complete expose from Mr. Robert A. Fisher, a young scientific gentleman of great promise, in Providence, R. I. Last week we stated that the effect produced by Mr. Paine was known to us for twelve years. Our readers will find it fully described on page 62 of "Parnell's Chemistry:" the day after we went to press we received the "Manufacturers' and Farmer's Journal (Providence) giving an account of the expose. Mr. Paine, it seems, put up his apparatus on the second day of the Show, and on that evening had it burning for a short time, but it was not in good working order Having repaired the defect, it was kept burning for two hours, and gave a beautiful light, but on Saturday he returned to Worcester, leaving a notice appended to the apparatus, that it would be burning again on Monday evening, but it was not, on account of the sickness of Mr. Paine. On the following morning the apparatus was packed up and removed. On the first evening of the exhibition of the light, a very young man was seen standing before it, and examining the apparatus very closely, and Mr. Paine too. But it was enough.—He had it all. He left the hall for the laboratory of the Franklin Society, and commenced his experiments.

"On Monday, says the Journal, it was whispered about that an "opposition Paine's Light" was to be shown at the fair, but the apparatus hastily prepared, was not sufficient for a public exhibition, and it was postponed. The following day one was made of sufficient power, and on the last evening of the exhibition, though Mr. Paine's light had ceased to burn in Providence, one was shown and explained, not only fully equalling it in brilliancy, but produced by the same means and by a similar apparatus, and upon principles known and published several years since in scientific works.

Mr. Fisher was the man who did this. After having set his light burning, he went on to explain his apparatus. which was similar to Mr. Paine's, and consisted of a small gasometer filled with atmospheric air, and kept constantly supplied by a pump. From the gasometer, the air is conducted to a series of six tin cannisters, of the capacity of a pint, arranged around a central one, a little larger than the others. In the first six cannisters was placed a mixture of benzole, alcohol, and water, sufficient to fill them about one quarter full. The mixture was made without reference to the quantity of each ingredient, but in such proportion as by experiment was found to afford the best light. It was found that about one part benzole, one part alcohol, and half a part of water formed the most suitable mixture. The air was then made to pass continuously through each of these tin cannisters, in very minute bubbles, through the contained mixture. From the last of the series it passed to the central one, which is empty, and served as an air chamber, by which a more steady light could be obtained, and any particles of the mixture passing over were arrested. From this chamber a tube arose a couple of feet in height, at the top of which were the burners.

Thus the whole operation consisted in passing a stream of air through these small reservoirs of the volatile hydro-carbon benzole, in mixture with alcohol and water, the vapor of which is taken up at ordinary temperatures, in quantity sufficient to burn with a beautiful white light."

Mr. Fisher claimed to have discovered nothing new, but he merely wished to give credit to the real inventor, a M. . Mansfield, of England, as described in the Annals of Scientific Discovery, page 191 1850. This is true as respects the alcohol and benzole, but the discovery of the principle, as we have stated, is much older, and does not belong to Mansfield, as Mr. Fisher will perceive by reference to the work we mentioned. But really, we give the right hand of fellowship to Mr. Fisher for thus backing up with forcible demonstration, the very opinions we have more than once expressed about it, We bide our time,—that miserable humbug, the "New Centrifugal Motive Power" will yet sink the propagators of such errors into the slough of disgrace.

Washington Monument.

The Washington National Monument is now ninety-eight feet high. It is faced with beautiful white marble, from quarries in Maryland.

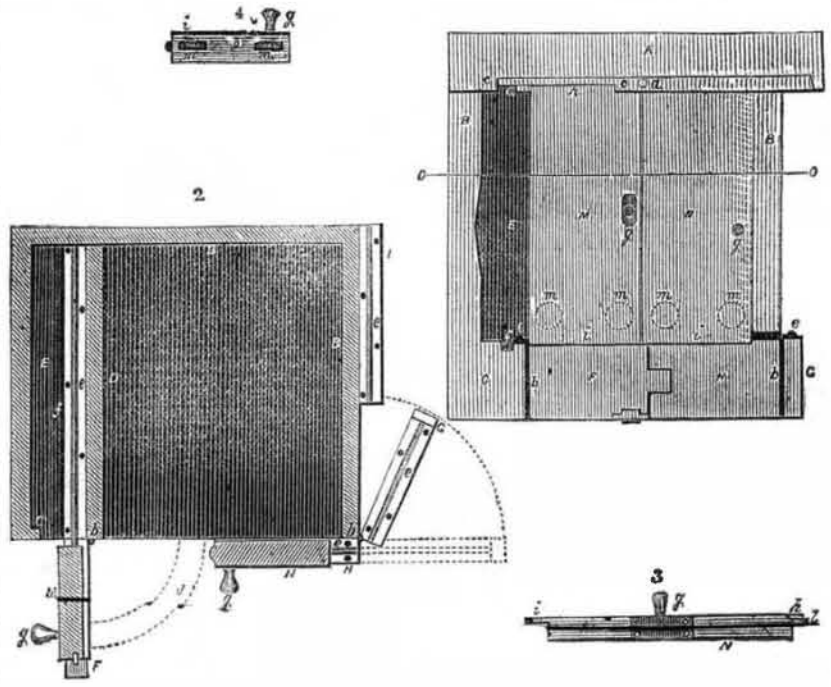
The material of which the base and the body of the walls are constructed is blue rock or gneiss, from the banks of the Potomac.—The dimensions of the obelisk, according to the plan, are, fifty-five feet square at the base, and thirty-three at the top, with an opening for the iron staircase of twenty-five feet. The height of the obelisk is to be five hundred feet; diameter of the pantheon two hundred and fifty feet, and the height one hundred. The walls are fifteen feet in thickness at the base, and will gradually diminish to four at the apex.

The blocks of stone are raised by means of a steam engine, there being a four-boom derric rigged on top of the monument. They are elevated at the rate of thirty feet a minute, and some of them weigh about three tons each.

The foundation is a solid mass of rock eighty-one feet square and twenty-five feet in height.

Twenty eight of the blocks contributed by the States and associations have already been inserted in the monument; those of the first are placed opposite each landing, and of the latter below them. They commence with Maine. Thirty or forty blocks are deposited in an outhouse, and will be assigned positions as the building progresses.

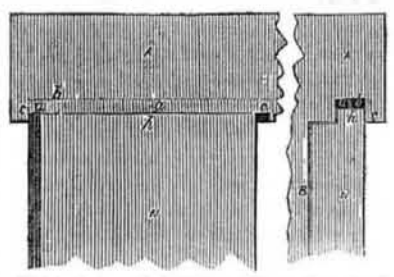
IMPROVED ATTACHMENTS FOR OPENING, CLOSING AND REMOVING DOORS AND SHUTTERS.---Fig. 1.



The accompanying engravings represent an improvement for the purpose set forth in the foregoing caption, invented by Mr. Wm. Post of Flushing, Queen's Co., L. I., N. Y., and which was patented on the 18th of last February.

Fig. 1 is a front elevation of a building with doors or shutters, and the improved attachments connected; fig. 2 is a sectional plan through the line, O O, fig. 1. Figure 3 and 4 are detached views of one of the shutters. Figures 5 and 6 are broken views in detail, on an enlarged scale, of the upper part of a shutter as seated in the soffit of the lintel, figure 5 being a transverse and figure 6 a side elevation, showing the position of the shutter in the soffit on the side of the building. The same letters refer to like parts.

FIG. 5. FIG. 6.



The nature of this invention refers to the use of the sliding doors or shutters for closing up the fronts or open portions of stores, &c., and consists in the use of jibs or swinging attachments, upon the upper edge of which the doors or shutters are run, and which may be swung in suitable directions so as to allow of the doors or shutters being run off and removed into a recess, in a line forming a right or other angle with the position they occupy when used in enclosing the windows, &c.—The jibs or swinging attachments also serve to carry out the shutters when required to close.

A is the lintel of the window or door; B B B are the back and two outside walls; C C is the sill; D is an internal wall; E is a recess for storing the shutters; *a a a* are grooves in the soffit of the lintel extending along the front and on both sides of the building, and used for the upper edges of the shutters to slide in; the lintel has notches, C C, fig. 1, cutting as it were the outsides of the groove, *a a*, in the front and one of the side soffits for a length of the width or rather more than the width of one of the shutters, and of a height to admit of a shutter swinging out. F G are swinging jibs hung and working on hinges, *b b*, attached to the sill, C C, at their one end, and their swinging extremity, forming a mortise and tenon joint with pieces, H I, nailed or firmly secured to the sill, C C; *d*, fig. 1, is a bearing roller for carrying the outer extremity of the jib, F, and J, a curved plate or surface for the roller, *d*, to run upon; *e e e e e* are rails secured on the upper edges of the jibs, F G, pieces, H I, and one side of the sill. *f* is a groove in and of the same length as the sill; M N, are sliding doors or shutters provided with handles or latches, *g g*; the lower part of the shutters, M N, marked, *i i*, are made to lap over the jibs, F G, pieces, H I, and to run in the groove, *f*, the upper part of the shutters, M N, marked, *h*, travelling in the grooves, *a a a*; on the top edge of each of the shutters is a projecting pin or stop, *l*, which also travels in the grooves, *a a a*; *m m m m*, are sheaves or bearing wheels for carrying or supporting the shutters and running on the rails, *e e e e e*.

When the shutters, M N, closing the front of the building, as shown in fig. 1, are required to be removed, the shutter, M, is drawn back upon the rail secured to the jib, F, until the corners of its upper part, marked *h*, arrive opposite the ends of the notch, C C, which is of sufficient height to admit of the top of the shutter clearing, when swung out, the upper line of the notch, C C, the pin or stop, *l*, serving to prevent the shutter from falling by its bearing or pressing against the outer side of the front groove, *a*. The grooves, *a a a*, being of sufficient depth or height to admit of the stop, *l*, travelling within them. When the shutter, M, is drawn back to the position just described, the jib, F, is swung outwards, or opened, and with it the shutter, M, until arriving at a right angle with the front, and in a line with the rail, *e*, on the sill at the side, when the shutter, M, may be run into the recess, E; the operation in removing the shutter, N, is somewhat similar, the jib, G, being opened until arriving in a line, and forming a continuation with the piece, H, when the shutter, N, may be run off upon the rail secured to the jib, G, which may then be closed, its tenon entering the mortise in the piece, I, (the upper part of the shutter, N, marked, *h*, passing through the notch, C C,) when the shutter, N, may be run along the rail secured to the piece, I.

When required to draw out the shutters for closing, the same action is used as for opening and removing, the swinging jibs, F G, operating in the manner described, and serving to break the angle, as it were, formed by the shutter recess and window or front; or by their swinging action, admitting of the shutters being drawn off or on, and carried round a corner or angle, as shown and described.

Any number of doors and shutters may be used, and there can be no doubt but that for heavy doors and windows this is the best invention yet brought before the public; it only wants to be examined calmly and intelligently to meet personal approbation. They can be constructed at less expense and much easier managed than any other heavy shutters for stores with which we are acquainted.

More information may be obtained by letter addressed to Mr. Post.

Post-Office Stamps---Unfair Dealing.

We learn by the Bangor (Maine) Mercury, that Mr. Joseph W. Strange, a good mechanician, of that place, has been unjustly used in respect to the contract by our government, in getting up "post office stamps." It is stated that the stamps are made in this city, (N. Y.) "of maleable iron, case hardened. The letters and figures are very defective. The fortunate contractor, we learn, receives $10,60 for each set, including the dates, months, "free stamp" and paid stamp. A skilful mechanic of this city put in proposals to make the stamps required, of steel, finely tempered, according to specimen sent, for $10,50 per set, ten cents less than they are furnished by the person who has succeeded in getting the contract. We venture to say that the specimen sent by Mr. Strange of this city, (to whom we refer above) is decidedly superior to any stamp ever used in any post office in the country. Its letters and figures are clear and distinct, of material tempered with skill and care, are durable, and will preserve their edges and points for years. The impressions from it are clear and legible. And Mr. Strange would have honorably furnished, had the contract been awarded to him, stamps in all respects equal to the specimen. He was the lowest bidder and sent the best article. Why did he not receive the contract? Who can tell us?

[Our friends at Bangor are perhaps not aware that the contract system, by our government—like other governments; is none of the purest. Political partizanship and patriotism are totally distinct articles, the former is a mere article of merchandise, the latter cannot be bought; this accounts for the abundance of the former in the market, and also for the premiums sometimes obtained by trickery in selling it.

Cure for Hydrophobia.

Mr. James A. Hubbard, of Boone county, Ill., in a letter to the St. Louis Republican, says:

"Eighteen years ago, my brother and myself, were bitten by a mad dog. A sheep was also bitten at the same time. Among the many cures offered for the little boys (we were then ten or twelve years of age,) a friend suggested the following, which he said would cure the bite of a rattlesnake:

Take the root of common upland ash, generally called black ash; peel off the bark, and boil it to a strong decoction; of this drink freely. Whilst my father was preparing the above, the sheep spoken of began to be afflicted with hydrophobia. When it had become so fatigued from its distracted state as to be no longer able to stand, my father drenched it with a pint of the ash root ooze, hoping to ascertain whether he could depend upon it as a cure for his sons. Four hours after the drench had been given, to the astonishment of all, the animal got up and went quietly with the flock to grazing. My brother and myself continued to take the medicine for eight or ten days—one gill three times a day. No effects of the dreadful poison were ever discovered on either of us. It has been used very successfully in snake bites to my knowledge.