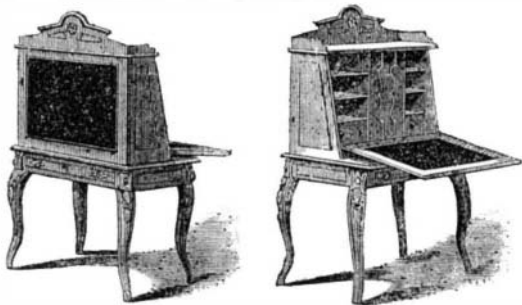


THE LEVERING PATENT DESK.

One of the characteristics of the present age, is the constant effort to improve the articles in daily use in our dwellings and offices, and to add to our household conveniences and facilities for the transaction of business. The writing desk has received its full share of attention from inventors, but the idea of rendering its upper surface a means of something more than mere support for documents, and a plane on which to write, seems to have been heretofore somewhat overlooked.

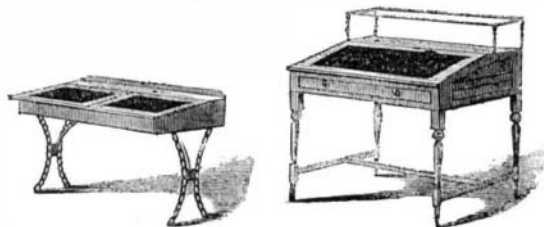
The object of this invention is to combine the advantages of the smooth top with those of a surface which will, at the same time, answer the purpose of a slate or blackboard, on which temporary writing and figuring may be performed with the ordinary crayon or slate pencil.

The feature of this invention which has been made the subject of patent, is the adaptation of a slate surface to the tops of desks, for schools, counting rooms, or for any other purpose for which such desks may be desirable.



For schools the use of this desk obviates the breaking of slates and the expense of replacement, and what is a still more important consideration, obviates much of the noise in schoolrooms attending the use of loose slates, and the marring of the tops of ordinary desks by the attrition of slate frames.

The illustrations we give of different patterns of this desk, show them to be tasteful in design, and also exhibit fully the application of the improvement.



The composition used is equal in hardness and smoothness to the stone slate, while at the same time they retain figures better. The latter are however, readily removed by a damp cloth or sponge. These desks have been introduced into some counting rooms in this city, and we understand give good satisfaction.

In commercial schools and colleges, they would be of special service, as they can be used with great advantage in teaching writing and book-keeping. For mechanics who frequently wish to draw temporary plans they are also very useful.

Two patents have been obtained on this desk, and a reissue is now pending. The surface may be made of stone slate as well as composition, but the composition is more convenient to apply, and is considered superior in other respects.

Manufacturers and dealers in school and counting-house furniture would do well to give attention to this improvement. The inventor, Mr. W. W. Levering, may be addressed, at 35 and 37 Park Place, New York city, and he is ready to negotiate with parties desirous to obtain rights to manufacture.

Patent Office Affairs.

Commissioner Fisher has given his decision in the case of the Heck thread dressing patent, an extension of which was asked. The application was rejected on the ground that the invention was not new at the time the original patent was applied for, and that the patent should never have been issued.

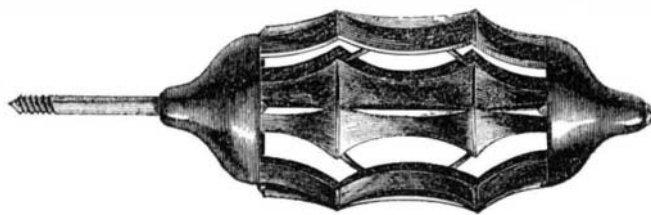
Extension have been granted in the following cases: Stevens, Crosby, and Pearson, of Boston, for a seed planter. Thomas J. Silsby, administrator of Arad Woodruff, of Boston, for improvement in machinery for spinning, and to Thomas J. Knapp, for an adjustable tenoning tool.

The senior member of the Board of Examiners-in-chief, Mr. Hodges, who acts as Commissioner in the absence of that officer, has heard the argument and given his decision upon the following application for extensions of patents: Jacob A. Conover, of New York, for a wood-splitting machine; George W. Brown, of Galesburg, Illinois, for a corn planter. Mr. Hodges in both cases granted the extensions prayed for. The Commissioner having been employed as counsel in lawsuits in which these parties were interested, left the office temporarily in the charge of Mr. Hodges, while these parties were before it. It was from parties interested in the latter case that the telegram was sent to Senator Trumbull to prevent Colonel Fisher's confirmation, stating that he was employed as counsel in five cases involving several millions of dollars.

F. W. Ritter has been promoted from a clerkship to Second Assistant Examiner, and assigned to Professor Hedrick's class of chemicals, and James Lupton, of Ohio, has been appointed second class clerk. Peter Nodine has been appointed machinist and superintendent of the model room, vice Cornelius Jacobs, removed.

PRATT'S ELASTIC BOILER-TUBE SCRAPER.

As the engineering public is gradually becoming educated to the realization of the economy of keeping boilers clean, a considerable number of devices have been patented to meet the demand for a good tool to clean out flues. Brushes have been tried, but the deposit which forms in flues needs something more powerful than them for its effectual removal. We last week illustrated an improved boiler flue scraper, and this week we lay before our readers a description and engraving of another device for the same purpose, the invention of Mr. E. L. Pratt, deceased, late of Beverly, Mass., a patent for which was granted to H. L. Pratt, administrator, May 11, 1869.



This scraper consists of two tapering heads, the broad parts of each facing the other, fixed upon a pipe or rod at a short distance from each other. The broad ends of the heads have mortise-like recesses formed in them, which receive the ends of the cutters; the mortises being large enough to admit considerable play of the cutters to and from the longitudinal axis of the instrument. Each of the cutters has two cutting edges at right angles with its longitudinal axis, so arranged that any part of the surface, omitted by the forward one, shall be scraped by the other. These are also contracted in the middle into a shape approximating the section of an hour-glass, so that all the soot falls into the central part of the instrument between the cutters, and is drawn out with it. The cutters are pressed out against the sides of the flues by elliptical plate springs, which also permit the scraper to enter and clean flues of various sizes. The cutters are to be made of chilled iron which will render them very durable. From the cutting edges of the cutters extend, toward each head, ribs which facilitate the entrance of the instrument; and they also have a central rib extending between the cutting edges, which facilitates the entering of the hinder cutting edges, while it is sufficiently depressed not to interfere in the least with their operation.

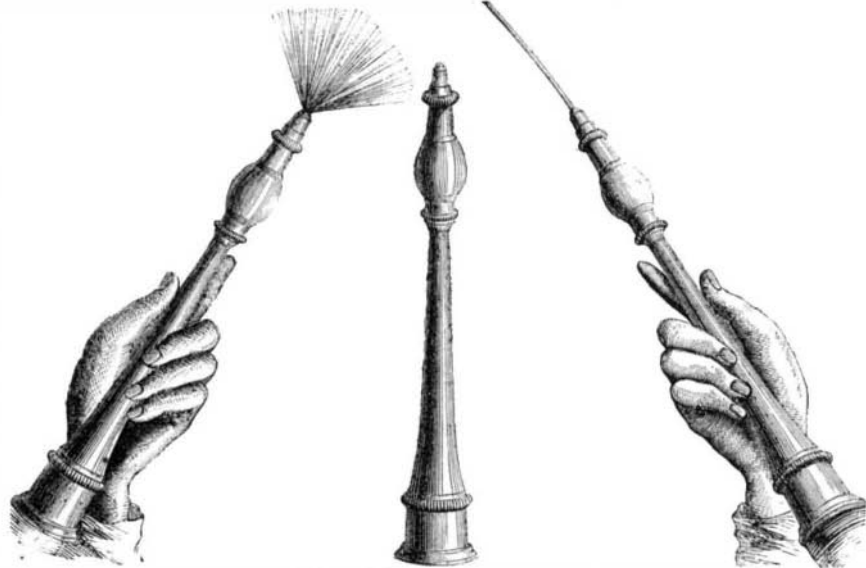
The scraper is so cheaply made that it is designed to furnish them for every diameter of tube, and in such case, the cutting edges are made to fit the curvature of the interior surface of the flue.

It is claimed that this scraper is cheaper, more durable, and effective than any form of wire brush.

Orders should be addressed to Miller's Falls Manufacturing Co., 87 Beekman st., New York city.

Improved Hose Pipe.

This hose pipe combines the solid jet, spreader, and stop cock, in one. It is so constructed that by simply turning, with the



BABBITT'S HOSE PIPE.

thumb and forefinger, the milled nut near the small end, the jet is either entirely checked or diffused in drops, as with the ordinary sprinkler, or fine like mist, so that the most delicate plant may be watered by it without injury.

It is simple and compact, and perfectly easy to operate. We have used one of these hose pipes and find it very satisfactory. For florists it is the very thing wanted. Arrangements have been made to supply hose dealers throughout the United States. For particulars address the patentee, F. S. Babbitt, Taunton, Mass.

How Granite is Affected by Fire.

There are few people having any connection with the building trade in this country but have an idea of the strength and durability of granite, its excellent qualities for the general purposes to which stone is adapted, rendering it of almost universal utility. Granite is composed of mica, quartz, and felspar, and its quality is easily discovered by the proportion and arrangement of these; but sometimes traces of other minerals are visible, and influence its density and color proportionately. Geologists accept it as an igneous rock, from the fact of its unstratified condition and the perfection of its crystals, which seem not to have been worn by friction as others are that are found in sedimentary formations. An-

other peculiarity that it possesses is the quality of indurating or hardening other bodies with which it comes in contact, and this renders it a superior stone for house-building purposes. It is well known that granite walls, if properly built, need no supplementary linings to make them damp-proof, and that mortar will adhere to them and "set" in a manner similar to that which it does when applied to brick. It must not be thought, however, that this peculiarity arises from either porosity or absorption, for experiments have proved that granite is as dense and impervious to moisture as any stone that we possess, except basalt, and consequently its indurating property must be the result of something else—probably, as far as mortar is concerned, of evaporation caused by the latent heat of the stone, such as all pyrogenous bodies are known to possess. But, to be more practical with the subject, we will refer to Wilkinson's experiments on the different varieties of building stone—experiments that were conducted with an amount of care and exactness that leaves little room for doubt as to the accuracy of their results. The average weight of granite he sets down as 170 lbs. per cubic foot, and the quantity of water that it absorbs by immersion about $\frac{1}{4}$ lb. per cubic foot. The weight of limestone per cubic foot and the quantity of water that it absorbs, he sets down similarly.

Now, from this it is apparent that it is not by absorption that granite maintains dryness, but rather by some other influence that it exercises; for limestone and it being bulk for bulk of equal weights and equal absorbing tendencies, it might naturally be expected that their damp-resisting qualities would also be equal. Such is not the case, however; for while moisture is unnoticeable on the granite, it appears plentifully on the limestone, or exudes through the plaster in case it is covered, although both stones may be subjected to the same weather influences.

As a fire-resisting stone, granite ranks medium, and, like calp, the inferior qualities are the best adapted to this purpose. In many parts of Ireland where it can be obtained, and where bricks are not available, it is used for lining lime kilns—a requirement for which it has been found very suitable. It sometimes, too, supplies the place of fire lumps in the backing of kitchen grates and in lining ovens, and in such positions answers very well.

The harder descriptions yield soonest to the influence of fire, as they "break up" into more regular portions than the softer kind, which rather undergo a wasting process by disintegration.

It may be well here to observe that, unlike the generality of building stones, granite will hold together firmly, even though it may be severely fractured. The friction of its component parts, supplemented by the toughness of its mica, acts with a degree of power that requires the exertion of considerable force to effect separation, and this, although its cohesive properties are completely destroyed. The general fractures by fire are vertical, and in nearly all cases parallel to the face, but sometimes they traverse the face in different directions, the change chiefly depending on the quality of the stone and the direction of its mica.

The granite that we noticed in Messrs. Meade's concerns after the fire was the coping of the wall between their premises and the railway station. The stone is of medium quality. Its projection on that side in contact with the fire was carried off in a line with the face of the wall, but other than this it did not exhibit symptoms of yielding that could be called serious, although at times during the fire the flames completely enveloped it.

In Messrs. Barrington's concerns, too, in Kings'-Inns street, where a terrible fire occurred some years ago, the granite piers and copings withstood the intensity of the heat without sustaining injury beyond the chipping of some projections, and the injury here, as in the

former case, we believe to be the result of a reaction, caused by the water coming in contact with the intensely-heated stones. The opinion on this matter is strongly supported by the fact that in the lining of lime kilns, where granite is submitted to violent heat for considerable periods, it exhibits tolerably fair resisting qualities, never yielding in mass, and but slowly by disintegration.

We, therefore, look upon it as a material that may with safety be used in structures intended for fire-proof purposes. —*Irish Builder.*

W. W. CORCORAN, a retired banker, has conveyed to a Board of Trustees, the Corcoran Art Building in Washington, to be held in perpetuity as a free picture gallery. The property is a very valuable one, and Mr. Corcoran proposes to endow the gallery with a cash gift of three hundred thousand dollars. August Belmont, of this city, is going to give a dozen of the most valuable pictures from his private collection as his contribution. Mr. Corcoran's gift aggregates something like one million dollars, and places him among those to be forever spoken of as great public benefactors. It is a noble thing, and, if the money is judiciously expended, the collection will become a source of deep interest and instruction to all classes of our citizens who are able to see it.