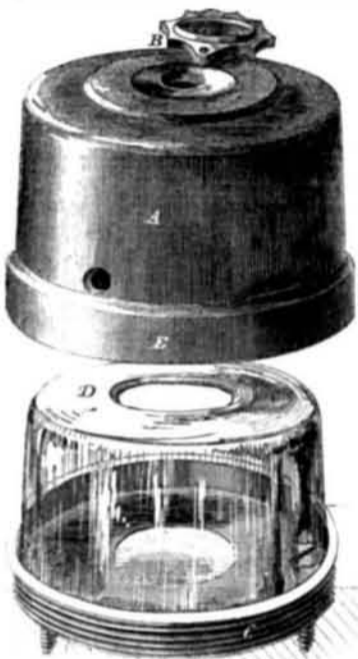


New Inventions.

Patent Inkstands for Desks.

The accompanying engraving are views of an improved mode of securing inkstands to desks of schools, for which a patent was granted on the 12th of August last, to L. R. Satterlee, of Rochester, N. Y.

The nature of the invention consists in providing an outer case for the inkstand, which shall protect it from injury and dust, render it immovable by children in school, and at the same time afford perfect access to the ink, and every facility for cleaning the ink holder or bottle.



The top figure in the engraving is a perspective view of the outer case, or cap which is of cast metal. A is the main part of it; B the small swivel lid of the opening at the top for dipping the pens into the ink. The bottom flange, E, is part of the case, which has a screw thread in its interior. Figure 2 shows the ink holder, D, which is of glass and of a common form. It is seated on the bottom part, C, of the case, A. This bottom part is secured to the desk by small screws, as shown; then the ink holder, D, is set into it as shown, and case A is then set over D, and screwed on to the bottom, C, thus securing the inkstand firmly to the desk, so that it can not be moved by the scholars. The case is screwed firmly on its seat, with a small pin wrench, the pin being inserted into the small hole shown in A. Children, therefore, will not be able to remove it by hand, but they will have free access to the ink with their pens. This case can easily be unscrewed by the master, to fill up the ink holder, or to clean it out. A piece of coarse woolen cloth or fur is placed under the seat, C, in winter, and the lid, B, is made to fit air-tight, thus providing an excellent non-conducting medium of a small air space around the glass inkholder, to prevent the ink from freezing during cold nights—a very useful and important consideration. As the immobility of this inkstand is certain, its durability is well provided for, and it effectually prevents scholars from wasting the ink and splashing it over the desks, copybooks, and their clothes, by the tipping over of the inkstand by the mischievous imps.

For further information address Mr. Satterlee, at Rochester.

Improvement in Saw Sets.

This figure is a perspective view of the improved saw-setting instrument of L. Brooks, for which a patent was obtained on the 17th of last June.

A B are the two arms or handles, and C D are the two jaws, the one working inside of the other, on a pivot. S represents a section of a saw grasped between the jaws—part of it being removed at the middle to show both jaws. E is an adjustable angle bed placed in a cavity in the jaw, C; it gives the exact set to the teeth of the saw. F is a set screw, by turning which in the jaw, the angle bed, E, is

set to the proper angle at which the saw teeth are desired to be set. G is an adjustable spring gauge. It is inserted between the teeth of the saw, and gauges them from their roots or base. I is a slot in it, in which the adjustable screw, H, is inserted for setting the gauge for larger and smaller saw teeth.

To use this instrument, the angle bed, E, is adjusted by screw F, to set the saw teeth to the angle desired. The saw is then grasped between the jaws; (the dotted lines on jaw C, are intended to represent the saw teeth in front of the jaw, with the gauge, G, in the throat between two teeth.) By pressing on

BROOK'S IMPROVED SAW SET.



the handles, A B, the tooth on the bed, E, will receive its proper set, and the jaws then spring back, relieving the saw; the second tooth from the one set is now placed on E, and set, and so on until the teeth on one side of the saw, are set. The other side of the saw is now grasped between the jaws, and every second tooth operated in the same manner, thus setting all the teeth of the saw perfectly true, with rapidity and with ease. The angular bed, E, makes it universal in its application to all saws to set large or small teeth. The pressure of the jaws comes en-

tirely upon the plate of the saw, not upon the tooth, as in some other sets; the teeth are thus never bruised, blunted, nor injured in setting. The spring gauge guides the teeth of different sizes into the proper position, and prevents them from slipping during the act of setting. It is a very simple and correct saw-set; it can be used with facility, readily adjusted for different saws, and it is not liable to get out of order.

For further information address J. B. Morrell, agent, No. 304 Broadway, New York city.

Chargers for Shot Pouches.

The accompanying figures represent an improved Charger for the shot pouches of sportsmen. Figure 1 is a perspective view of one of the chargers detached from the shot-bag, with a part of it removed, to show the interior.

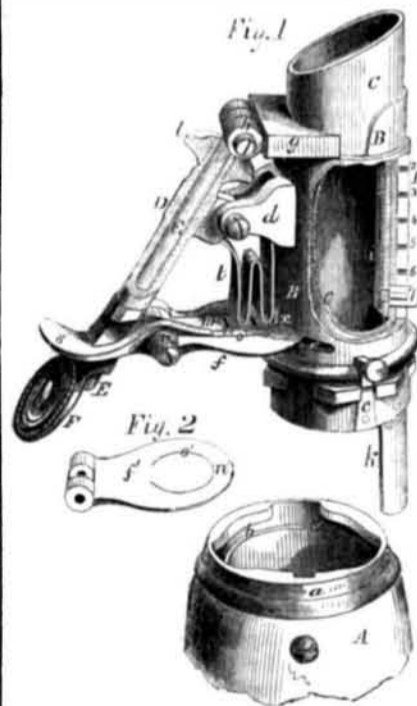


Figure 2 is a perspective view of another lower slide, f', with the circular slot, o', cut in it, for the purpose of allowing the edge, n', to glance more readily over large or small shot.

Figure 3 is a perspective view, to show the adaptation of the charger to double pouches, which could not be done in the ordinary screw charger.

A represents the base of the charger with the neck of the pouch just below it. A swell

or collar, a, is made at the upper part of the base piece, and a circular groove, b, is formed on the inside of said collar, into which a spring catch, c, takes, to hold the upper to the lower portion of the charger, and to facilitate the removal of said upper portion when the pouch or bag is to be filled with shot.

FIGURE 3.



The charger proper is made of two cylindrical tubes, viz., an outer one, B, and an inner one, C. The outer one, B, being provided with lugs or ears, d, to which the lever, D, is pivoted or hinged, and a slot or opening, e, through which the lower slide or gate, f, passes; it is, moreover, provided with a narrow vertical slot, 1, from which branch opposite to each other horizontal slots, 2 3 4 5 6, or more, into which a peculiarly shaped spring catch attached to the inner cylinder, C, takes, to hold it when adjusted to the proper charge of shot that may be desired for the time being. The inner tube or cylinder, C, fits loosely, but neatly within the outer one B, and projects above the top of the outer one. Near the top of the one, C, is a projection, g, in and through which the slot or opening for the upper slide or gate, h, is made; it has also upon it the spring catch, i, above referred to, for admitting of adjustment within the outer tube, and for holding the two together when adjusted.

This spring catch, i, has a tongue, 7, at its outer end, with shoulders at the base of the tongue, so that when the inner tube is to be raised or lowered on the outer one, the tongue, 7, is pressed into the vertical slot, 1, and the button or wide part of the catch, i, will slip into the horizontal slots, 2 3, &c., allowing the inner tube to be raised or lowered, and when at the proper height, by releasing the tongue, 7, of the catch, it will spring out, and allow the wide portion to take into the cross slots again, and there hold it. This kind of fastening admits of raising or lowering the inner tube in a vertical line instead of the double motion, both vertical and horizontal, required with the ordinary bayonet fastening, as commonly used. The inner tube, C, has a portion, k, of its lower part elongated, so that the lower gate or slide, f, may always shut against it, however high or low within its limit of adjustment it may be placed. The manner of securing the upper to the lower portion of the charger may be substantially the same as that shown in a former patent of August 1st, 1854.

The lever, D, is hollow or tubular, and the rod, E, to the upper end of which the upper slide, h, is hinged, passes through it, so that the two slides may be moved nearer to or further from each other, the lever and rod being held together when adjusted by a tightening screw, l; the lever, D, is provided with a thumb piece, F, for operating it, and through it the slides, f h, which are so arranged—one on each side of the fulcrum—that when one is shut the other is open, and vice versa.

The lower slide, f, may be made of thin steel, so as to have elasticity and a greater facility for passing through the shot, to separate the charge that is to be used from that in the pouch or bag. The center portion of the slide, f, is cut or punched out, and a piece, m, provided with a series of small holes, n, neatly fitted into said opening. A slot is also cut in the slide, f, so as to separate and make a spring o, out of the portion so cut, which spring bears against the inserted piece, m, raising it slightly upward, and throwing the openings, or one of them, against a small bolt or pin, x, fastened on the outer tube, B, which locks the slide, f, against accidental opening until the user desires to open it. The slide, f, is pivoted at r to the lever, D, and on the same pivoting pin is hung the piece, m, which piece, m, has a lever, s, projecting rearward, and close to or over the thumb piece, F.

As represented in fig. 1, the slide, f, is locked, and any brush, twig, or other thing pressing against the thumb piece, F, or the lever, D, would not move it, or the one, h, above, which would lose a charge of shot. But to make the unlocking of the slides an easy operation to the user, the lever, S, projects over the thumb piece, F, so that as the thumb is slipped upon F, it raises up the lever, s, and throws down the piece, m, from the bolt, x; by then pressing on the thumb piece, the slides work, and by releasing the thumb piece the lever and slides return again to the locked position shown in fig. 1. A folded or crimped spring, t, is arranged between the outer tube, B, and the lever, D, for throwing back the slides and lever, when the thumb has been removed from the thumb piece. By crimping this spring, t, it allows the use of a longer spring, which has more elasticity, and is less liable to break than those ordinarily used.—The series of holes, n, are for furnishing a stop at any one of the changes of the charger, the position of the slide, f, varying as the charger is changed or lengthened.

This is a most convenient and excellent shot charger. Patented Sept. 2d, 1856. John M. Hathaway, of this city, is the patentee, from whom more information may be obtained by letter addressed to No. 52 Barrow street.

Removing Scale from Steam Boilers.

R. B. Lindsay, of London, has obtained a patent for removing scale from the interior of steam boilers by heated air, or highly heated steam. All the water in the boiler is run off, and the boiler is then left to cool. When cold, the highly heated air or steam is introduced by a pipe, when, after a suitable time being allowed for it to take effect, it is stated that the scale cracks off and leaves the plates clean. The scale is then blown out with water and steam through the blow-off cock.