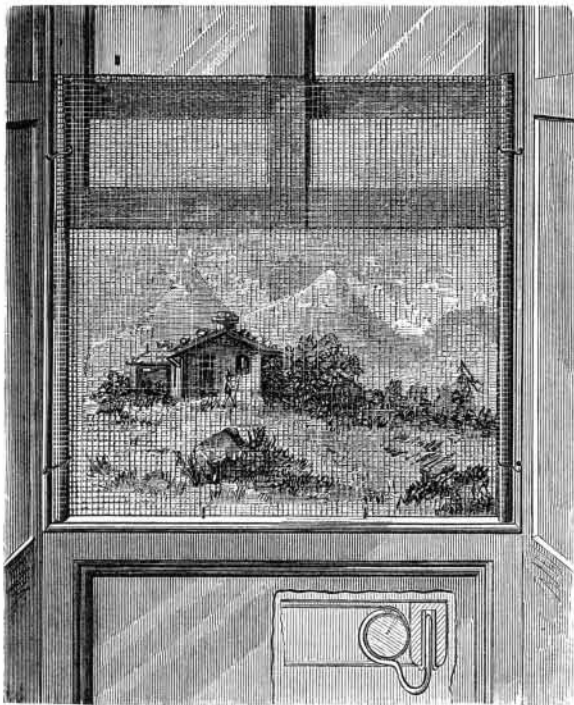


IMPROVED WINDOW SCREEN.

The annexed engraving represents a wire cloth screen, which is adjustable without alteration to windows of differing widths. It is an efficient guard against the ingress of flies, mosquitoes, etc., is durable, and not costly. It consists of a broad band of wire cloth secured to rollers as shown.

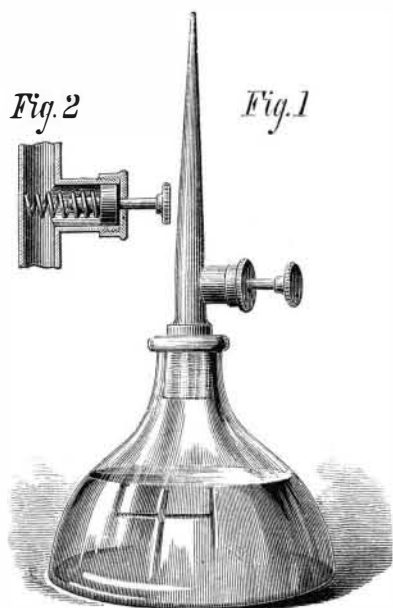


These rollers, about which the cloth is wound so as to adapt it to the width of the window, are held in place by two brass wire clasps, arranged one on each side, and constructed as represented in the sectional view below. On large windows four such clasps would be used. The shanks of the clasps are inserted in closely fitting metal sockets, which last can be easily placed in the window casing by the aid of a gimlet or bradawl. The device is exceedingly simple and very easily adjusted.

Patented November 16, 1875. For further particulars regarding sale of patent or portions of the same, or relative to purchase of screens, address W. D. Walbridge, 322 Degraw street, Brooklyn, N. Y.

IMPROVED OIL CAN NOZZLE.

We have occasionally directed the attention of inventors to the fact that some simple adaptation of a glass bottle, so as to render it utilizable as an oil can for sewing machines, is needed, since such a device would probably diminish the cost of the oiling apparatus, and at the same time would admit of selling the oil in the bottle from which it subsequently would be used. Mr. R. H. Hasenritter, of Herman, Gasconade county, Mo., has recently contrived a neat little arrangement for the above purpose, which seems to answer the requirements satisfactorily. The bottle itself may be made in the usual oil can shape, shown in our engraving, Fig. 1, or after any other pattern, since the means of forcing out the oil lies in the nozzle, which is easily inserted in the mouth of the vessel. The inventor simply forms, on an ordinary nozzle, a little cylinder, in which he places a piston sustained by a spiral spring, as shown in the section, Fig. 2. The bottle having been turned so that the oil will run into the nozzle, by pressing slowly down upon the piston the oil is caused to run out gradually, or by a sudden push it is made to escape in a jet or stream.



The inventor points out that the device may be used on any kind of oil can now employed in shops, and may prove an advantageous substitute for the usual spring bottom, which is difficult to repair when injured. By making a screw thread on the end of the tapering nozzle, it can be applied to metal vessels having different sized mouths; and thus the nozzle, being complete in itself, can be manufactured for the market independently of every bottle or can. To adapt it for bottles, it is of course only necessary to wind packing about the screw thread so as to cause a tight fit. The inventor,

who may be addressed as above, desires to sell the patent in two parts—for glass oilers and for metal oilers, respectively. Patented February 29, 1876.

Temperature Fatal to Animals.

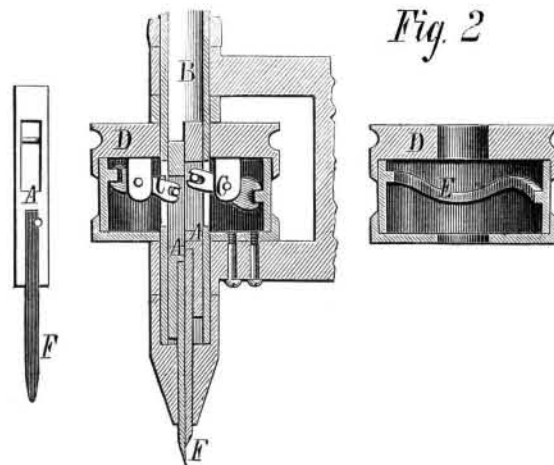
Dr. B. W. Richardson has determined, from observations on man and various other warm-blooded animals, that the increment of heat which proves fatal is from 11° to 12° Fah. above the natural temperature of the animal. In the human subject a steady elevation of temperature to 100° Fah. indicates fever; an elevation to 105° indicates danger; above that, great danger. At 109°, 11° above the natural temperature (98°), the condition is fatal.

ATCHISON'S ENGRAVING AND CHASING MACHINE.

In the accompanying engravings is represented a new machine for making engraved or chased groundwork on gold or plated jewelry, silver, silverplated, or washed ware. It can be applied as well to the lightest plated surface as to solid metal, and will produce beautiful matting, on gold rolled to the thickness of note paper. A perspective view of the apparatus is given in Fig. 1, and the working parts are exhibited in section in Fig. 2.



Two tool stocks, A, are arranged side by side in the hollow revolving mandrel, B, so as to slide up and down freely while being rotated. At C are levers suspended by hangers from the pulley, D, which turns the mandrel. These levers are each connected at one end with a tool stock, and at the other embrace the cam ring, E, which is within the casing. As the pulley revolves, the tool stocks are caused to move up and



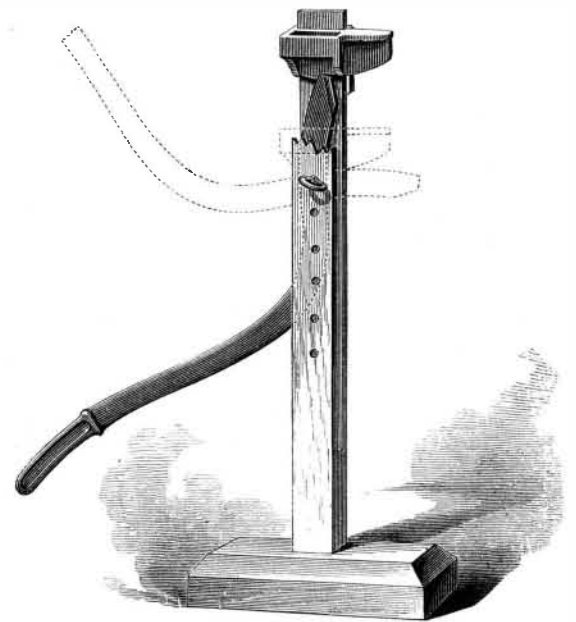
down, so that the tools, F, have a reciprocating as well as a rotary motion. The mandrel is mounted in a bearing attached to a stand, and has guide pulleys, as shown, for leading the belt from above to the horizontal pulley. The engraving tools are easily fitted into and removed from the stock, so that they may be changed in accordance with the kind of work to be executed.

The groundwork is produced on the metal with great rapidity, the tools delivering 5,335 cuts per minute, and the apparatus can be attended by a child. As the sale of jewelry and silverware depends almost entirely upon the ornamentation, it need hardly be added that a machine of this description, making a very excellent imitation of handwork, is one of considerable economical value to the jeweler and plate manufacturer. We are informed that the machine produces fourteen styles of ground work, claimed to be superior to satin, or pearl, or sand blast finish in depth, durability, and beauty. It is also adapted to wood carving, especially for panel work and for the routing of engravers' blocks.

Patented through the Scientific American Patent Agency, March 14, 1876. For further particulars relative to purchase of patent, address the inventor, Mr. R. R. Atchison, Room 8, 383 Washington street, Boston, Mass.

VIBERT'S IMPROVED LIFTING JACK.

Mr. F. C. Vibert, of Hockanum, Connecticut, has patented (November 17, 1874) a simple form of lifting jack, which, while an efficient and useful implement, can be made and sold at a very cheap rate. The standard is of oak, and is fixed above to receive the curved cast iron handle, which is



secured by an adjustable pivot. The upper part of said handle is rounded, and takes against a similarly formed portion of the lifting step, as indicated by the dotted lines. This arrangement of parts is one well calculated to apply the leverage of the handle at great advantage, so that, light and simple as the device is, very heavy weights can readily be lifted by it. When the step has reached the summit of the standard, the extremity of the handle steps under it, as shown (the parts being broken away for the purpose), so that the handle forms a firm support for the load. For further information, the inventor may be addressed as above.

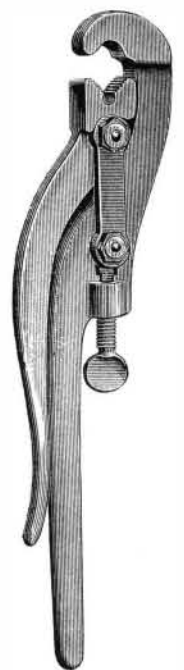
Stencilling Materials for Painters' Use.

Stencilling is an art by which the painter can execute ornamental work very quickly. The articles required in making a stencil are a sheet of well sized writing paper, a lead pencil, and a sharp penknife. Fold the paper, allowing the edge of the fold to form the center of the pattern, then draw any desired design, leaving bars to hold the parts together. Place the paper upon a piece of glass and cut out the figure with a penknife. The tool used is a camel's hair brush with hair not over one half inch long, bound with quill and wire on a round wooden handle. The small sizes are preferable. Color mixed with vinegar and sugar will be found best. The paint must be quite thick, and a small quantity only must be taken on the brush, and then well rubbed out on a dry plate before applying it to the work. Placing the stencil on the panel as desired, hold it down firmly, and rub over with the brush carefully until the cut portions of the figure are well coated. Then lift off the stencil and the work is completed.

IMPROVED ADJUSTABLE PIPE TONGS.

The novel feature in the improved pipe tongs herewith illustrated is the means of adjusting the movable jaw by the use of the pivoted bar and set screw represented. The arrangement of parts will be clearly understood from the engraving, so that further description is unnecessary. The tongs will perform all the ordinary duties of the implement in gripping pipes and studs, and is especially adapted for brass or other pipes which are liable to be injured by tongs of the usual construction. From the peculiar formation of the jaws, the present device holds the pipe without flattening or cutting it. It will readily be seen that the mechanical movement governing the jaws is such that they will hold without slipping, even, it is claimed, when worn or dull.

Patented through the Scientific American Patent Agency, September 25, 1875. For further information address Macdonald, Box 377, Halifax, Nova Scotia.



Messrs. Henry Disston & Sons, of Philadelphia, Pa., once said that they would sell American saws in Sheffield, England, and they have carried out their determination by filling orders received from Sheffield for small lots, while orders from Liverpool, England, for quantities up to 100 dozen, have been filled by them. They have received an order for saws for Japan, the Japanese workmen having minutely examined the temper and quality of the steel. This order has been followed by one for 2,000 plane bits.