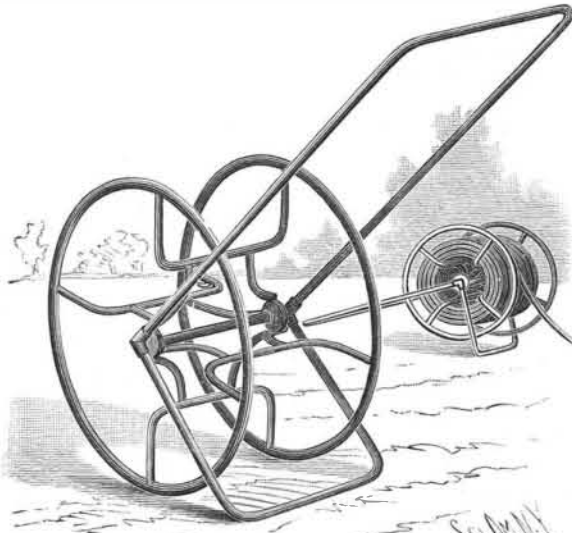


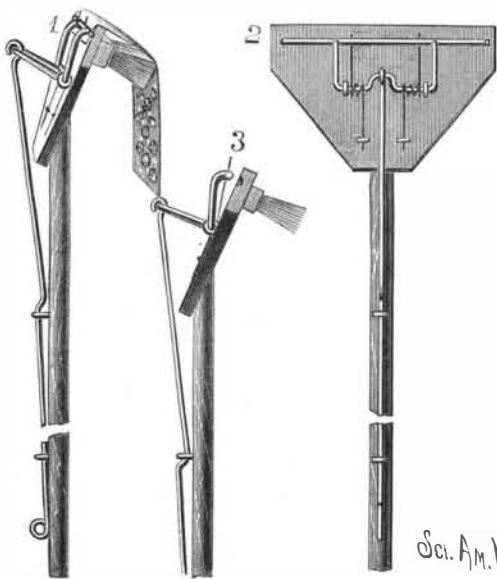
**AN ALL-IRON GARDEN HOSE REEL.**

A hose reel which is strongly made, of simple and inexpensive construction, and designed to be very durable, has been patented by Mr. Reuben D. Wirt, of Independence, Mo., and is shown herewith, one figure showing the handle and brace in position and the reel raised for reeling up hose, while the other figure shows the position of the handle when the reel is not in use. Its side circular sections, as well as its handle and brace,



**WIRT'S HOSE REEL.**

are preferably made of light iron pipe, the circular sections, instead of being united by welding or coupling collars, being joined by pins or rivets passing through them and through a filling block. Angular arms unite the circular sections, one of the arms having a cleat on its inner face to fasten the end of the hose. The handle is free to swing or turn over about the axle of the reel, and is connected at its inner ends, as by elbow couplings, with a bent foot brace, arranged to occupy an approximately right-angled position. When the



**McAFEE'S PAPER HANGING CLAMP.**

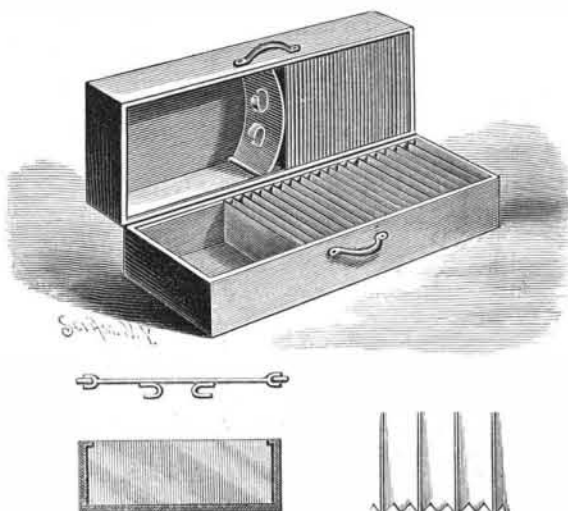
reel is not in use, the brace rests upon the ground, holding the handle raised and the reel in condition for wheeling away, but to reel up the hose the handle and brace are turned so that both rest upon the ground, and lifting the reel up from the ground.

**AN IMPROVED FILE CASE.**

A simply constructed case for filing documents that it is desirable should be filed for security, and at the same time be readily accessible at any time, is illustrated herewith, and has been patented by Mr. William F.



**ALTATHER'S FILE CASE FOR VOUCHERS, DEEDS, BILLS, ETC.**



**AN IMPROVED WIRE BOX STRAP.**  
A box strap made from Bessemer steel wire, of great strength and so made as to admit driving a nail at any desired spot, is shown herewith, in section and as applied to cases of goods. This strap will not cut the hands, is somewhat flattened, and will lie closer to the case than would an ordinary twisted wire strap; a nail may be driven in the last hole of the strap, so that it cannot be bent outward. The strap is formed in a machine capable of turning out 125 feet per minute, cut to the lengths desired, and painted ready for use. It is estimated that box straps of different kinds are used by about 150,000 houses in the United States, and as the cost of wood straps has been steadily advancing, this improved wire strap is designed to meet a growing demand.  
For further information relative thereto address Mr. H. Frank, No. 36 Elm Street, New York City.

**IMPROVED WIRE BOX STRAP.**

Altfather, of Weatherford, Texas. The case is made of two or more parts, so united as to allow of their being folded together, thus securing compactness and portability, and the case has extensible pockets, as shown in one of the small figures, to be made of heavy fibrous paper or any suitable material, formed with long folds, and with short folds at the bottom. The upper edges of the cases are made with a lip projecting inward, as shown in the cross section, to retain the pockets in their proper place, and a follower is employed to keep the papers filed so pressed together as to prevent their falling out of the proper compartment. The follower is made of such length that it needs to be slightly bent to place it in proper position, when its ends impinge on the sides of the case and retain it in position against the papers, a strip of rubber being secured on the ends of the follower to insure their engagement with the sides of the case. These cases are designed to be manufactured in different sizes for use in banks and insurance offices, as storage cases for records of county clerks, etc., as well as in business offices of every kind. For such uses they can be made, at a moderate cost, of a good quality of bookbinders' board with cloth corners. These extensible pockets can also be used in the drawers of desks and tables, which can be easily fitted to receive them.

**Purification of Yeast.**

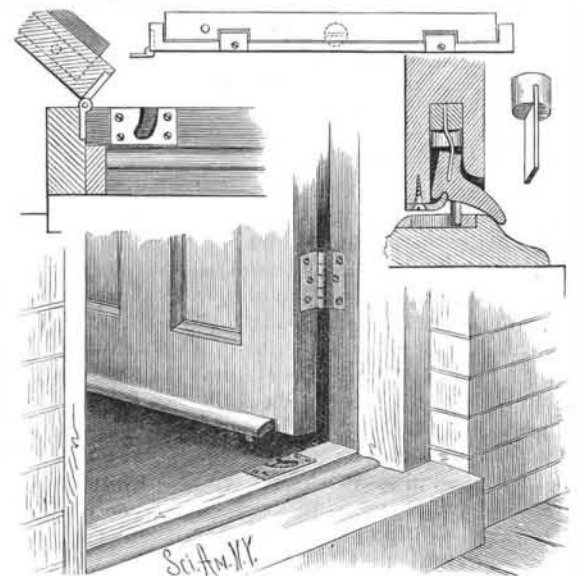
The *Brewer's Guardian* says that a new method of purifying yeast has been suggested, and that it has already been adopted by some of the Continental manufacturers. The yeast is added to a dilute solution of sugar, and the resulting mixture is subjected to the action of a centrifugal separator. By this means the living cells are effectually divided from the dead cells and the bacteria; the pure yeast leaving the machine in a concentrated condition, while the dead cells and the bacteria remain in the liquid. It is said that the process is so perfect that nothing but healthy cells are to be found in the separated yeast, and that the purified article possesses such remarkable germinating power that a glass which is one-quarter filled with it will overflow in the course of an hour.

**A CLAMP TO FACILITATE HANGING WALL PAPER.**

A simple device to facilitate the work of hanging wall paper is illustrated herewith, and has been patented by Mr. John F. McAfee, of Pleasant Hill, Mo. On the upper end of the handle is carried a slightly inclined plate, to the inner side of which is fastened a brush. Across the upper end of the back of the plate is a groove into which fits a bar secured to arms of a bell crank lever fulcrumed on the back of the plate, as shown in Figs. 1 and 3. The other arms of the lever are pivotally connected with a rod extending downward along the handle, and having an offset or shoulder adapted to engage a bearing on the handle when the rod is pulled downward. The paper being covered with paste, one end is laid over the upper end of the plate while the clamp bar is in open position, as shown in Fig. 3; the operator then releases the shoulder in the handle rod from its engagement, when the bell crank lever, by the action of a spring, causes the clamping bar to clamp the paper, as shown in Fig. 1. The operator then presses the paper, by means of the clamp and brush, against the wall near the ceiling, disengaging the clamping bar by means of the handle rod, and striking downward with the brush to press the entire length of the paper against the wall.

**AN IMPROVED WEATHER STRIP.**

The accompanying engraving presents a further illustration of the construction and operation of a



**REDMAN'S WEATHER STRIP.**

weather strip described in our issue of August 11, and which has been patented by Mr. R. C. Redman, of Salem, Oregon. The invention consists principally in an angular strip loosely pivoted in a recess in the bottom of the door, and having a slot in the upper edge of one of its angular portions loosely engaging a depending spring in the recess, its other angular portion projecting outward through a recess in the door, and having a pin adapted to engage an inclined slot in a plate on the threshold.

