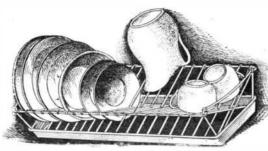
Scientific American



DISH DRAINER.

A novel utensil which should prove very useful in the household has just been invented by Mr. James P. Tibbits, of 509 Mount Hope Place, Tremont, N. Y.

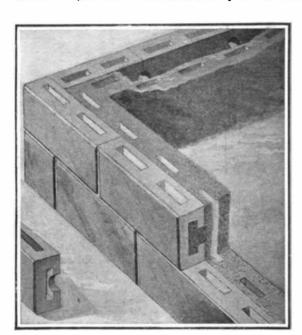


DISH DRAINER.

It is a device for holding plates, saucers, and other dishes in such position as to allow them to drain thoroughly. The utensil comprises a rack in which the dishes are supported and a pan to catch the drip. The rack is formed of two end frames of wire connected at the top and bottom by wire side members. A series of flexible span wires are run diagonally across from each upper side member to the opposite lower member. In order to keep these span wires in place, the side members are bent to a sinuous form. In use the dishes are inserted between the span wires. A considerable number of dishes can thus be accommodated in a comparatively small space. It will be noticed that the span wires touch the dishes at a comparatively small area of contact, and further, that the span wires being of metal, there is nothing to prevent the thorough cleansing of the dishes. Moreover, it will be observed that while each dish is supported at four points of contact, the extreme peripheral edge of each dish is entirely free, so that the drainage is perfect, also that each dish is, by virtue of its own weight, retained in a condition of stable equilibrium and is not easily caused to rock, if the rack be shaken or inclined. If desired, the dishes may be first washed or partially washed before being inserted in the rack, or as some prefer, they may be placed in the rack exactly, as they come from the table, and then cleansed by pouring boiling water over them.

AN IMPROVED CONCRETE WALL CONSTRUCTION.

As concrete absorbs moisture as readily as brick, it is obvious that dampness will penetrate a solid concrete wall and appear as beads or sweat on the plastering. For this reason concrete building blocks are formed with air spaces. But this does not entirely remedy the defect, because certain sections of the block which divide the air spaces form a solid mass extending from the outer to the inner side of the block, permitting the moisture to percolate unobstructed to the inner surface. To overcome this, as well as other difficulties generally encountered, Mr. John G. von Hofe, of 122 Elm Street, Long Island City, N. Y., has invented a new type of hollow building block and a new form of wall construction, which we illustrate in the accompanying engraving—a veneer of hollow blocks bonded to an air-spaced monolith mass. The block is narrow, being adapted to be used as an ornamental veneer for a continuous concrete wall. A recess is molded in the end of each block with a semicircular opening in the rear wall, and when two blocks are placed end to



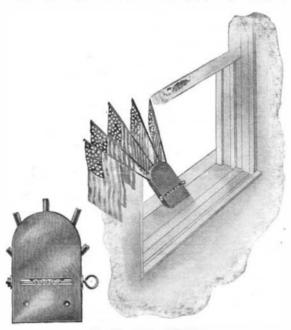
AN IMPROVED CONCRETE WALL CONSTRUCTION.

end, the adjacent recesses form a chamber, to which access is provided at the rear through a circular port formed by the two adjacent openings. This chamber being larger than the port serves as an undercut cavity or T-shaped lock. In constructing the wall the veneer blocks are set up in courses which break joints in the usual manner, and the concrete is poured in between them and a temporary backing. The material flows into the undercut cavities, securely bonding the blocks to the concrete wall. Each block is formed with

air spaces, which register with similar spaces in the courses above and below, so that continuous vertical air passages are formed throughout the wall. The concrete wall is also poured to form air passages back of each joint in the veneering, so that moisture seeping through the joint will be arrested by the air space. The invention can be applied to face brick, terra cotta, or cement blocks, and the face of the blocks can be molded to represent cut or rough stone, or any other desired pattern. The system may be employed on the tallest reinforced concrete structure, eliminating the expense of forming front panels for the face of the wall, while plain or ornamental designs can be molded at a cost only a trifle over that of the concrete displaced by the blocks.

A NOVEL FLAG HOLDER.

The accompanying engraving illustrates a novel device for displaying flags for decorative purposes. The device is of very simple design, adapted to be attached either to a window or a door casing, or to posts and pillars in halls, or it may be used on floats and wagons. It consists of a block formed with a beveled edge at one end, so as to enable the flags to extend outwardly when attached to a support. The opposite



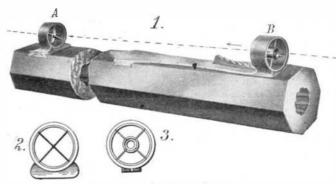
A NOVEL FLAG HOLDER.

end of the block, or standard, is rounded, and drilled into this rounded edge are a series of holes which extend to a slot formed in the face of the standard. These holes are adapted to receive the flagstaffs. In order to prevent the flag from slipping out of these sockets, a screw eye is fastened into the end of each staff, and a locking bar which extends transversely through the standard is adapted to engage these screw eyes, thus holding the flags firmly in place. It will be noted that the flag holder is exceedingly simple and inexpensive in construction, that it requires no skill to adjust it to its support, to which it may be secured by means of screws, and that when once secured in place it will remain in such position through any kind of weather without injury to the holder. Moreover, the holder dispenses with the necessity of nailing the flagstaffs to a window or casing, which would soon render the flags unfit for use, but on the contrary, with this holder the flags may be repeatedly used without injury to the flagstaffs, and without danger of their being stolen by passersby. The inventor of this novel flag holder is N. S. Makepeace, 213 East Monument Avenue, Dayton, Ohio.

A NEW RIFLE SIGHT.

A "bead and aperture" sighting system for firearms that possesses all the advantages of the old "peep and globe" sights without having any of their bad features has been invented by Mr. Charles G. Thunen, of Oroville, Cal. Both front and rear sights are cased in a circular cover, so that all danger of injury to the "bead" or to the "peep" is done away with. The objection that an aperture sight is a hindrance to quick shooting is removed by an ingenious bit of construction that enables one to see not only the mark, but also its surroundings, giving an aim that is quite as accurate as that obtained with the "Buckhorn," or similar type of open sporting sight, and in a much

shorter time. The following is an explanation of the drawing: Fig. 1 is an elevation of the improvement as applied to the barrel of a gun. Fig. 2 is an enlarged rear elevation of the front sight. Fig. 3 is an enlarged rear elevation of the rear sight, the spring plate being shown in section. The front sight \boldsymbol{A} and the rear sight \boldsymbol{B} are mounted in the usual manner on the barrel of the rifle or other firearm on which the sights are used. The front sight is held in a ring having a dovetailed base fitting a correspondingly



A NEW RIFLE SIGHT.

shaped groove on the barrel, in the usual manner for fitting sights. Within the ring is fitted a tubular support carrying cross strips, of which one is provided at its center with a slot for receiving a portion of the other strip, the latter having at the intersection of the two strips a bead of aluminium or some similar metal. The outer ends of the strips are fitted into slots in the tubular support, so that the latter carries the cross strips, one of which centrally supports the bead. The strips are arranged at right angles one to the other, and are preferably placed at an angle of 45 deg. to the vertical.

The rear sight is mounted on a ring held on the shell spring-plate and has the usual notched plate for adjusting the elevation. Within the ring is fitted a tubular support carrying cross strips centrally supporting a sight-tube, the axis of which coincides with the axis of its tubular support and with the axis of the bead of the front sight. These cross strips are also arranged at right angles, one to the other, and are also preferably placed at an angle of forty-five degrees to the vertical. This arrangement gives a set of sights which allows of simple and durable construction, and is arranged to stand rough usage. It also permits an exceedingly accurate aim to be taken without the danger of blurring, owing to the settling of rain or mist in the aperture. Since the metal parts making the actual sighting system are extremely thin, there is no danger of the usual burring, which is so annoying with sights of heavier construction.

CARPET STRETCHER.

A most powerful carpet stretcher has recently been invented by Mr. John Driver, of San Leandro, Cal. The device belongs to the type adapted to be pushed forward by knee pressure, and its operation is clearly illustrated in the accompanying engraving. It comprises a handle tapered at one end to enter a socket in a claw holder, while the opposite end is secured to a plate of L shape on which the knee cushion is supported. The claw holder is provided with a forked head at its outer end, in which a pair of toothed plates are secured. These toothed plates are spaced apart by a block of wood, which wedges them into the forked head. In this position they are also held by means of screws. The L-shaped plate at the opposite end of the stretcher is arranged to extend under the knee cushion, so that when it is placed upon the floor it will raise the cushion slightly above the carpet to prevent it from wearing; and since the plate is of





CARPET STRETCHER.