#### Scientific American

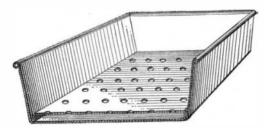


#### HOUSEHOLD SUGGESTIONS.

## AN IMPROVEMENT FOR THE BROILING PAN.

BY J. A. BERGSTROM.

When broiling steak, chops or the like in a gasrange, the suet that is tried out from the fatty part invariably catches fire. As a rule the fat is overheated and burns fiercely, and many efforts to put it out, when taken from the oven, fail.



DOUBLE-BOTTOMED BROILING PAN.

The accompanying illustration shows a very simple way to avoid this. In the pan used for broiling is placed a perforated false bottom, made out of black iron of any thickness. The edges are turned down, say one quarter of an inch, forming supports for the bottom. This false bottom should be nearly the same size as the pan. On large pans, of course, the bottom should be braced with strips of iron, to prevent warping from the heat.

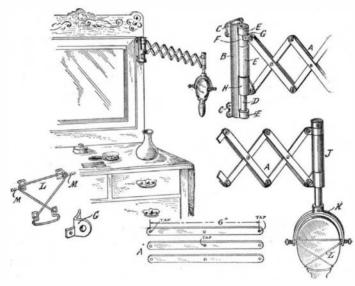
In service the suet melts, and runs down through the perforations to the bottom of the pan. No matter how hot the fire, the suet will not catch fire, as it is protected from the flames by the perforated bottom which acts like the screen of a miner's lamp. The bottom can easily be removed and cleaned and the suet in the pan be emptied out.

### FOLDING BRACKET FOR THE HAND GLASS.

BY A. R. VAN DER VEER.

A very useful adjunct to the dressing table is a small mirror, supported in such a way as to permit a person to view the side or back of the head without having to hold the glass in the hand. The writer after searching the city over for an article of this character, was forced to make one for himself. The task was not a difficult one, and directions are given herewith, which will enable anyone who knows anything about the use of tools to make such a bracket. Instead of having the mirror secured permanently to the bracket, it was decided to make a holder in which an ordinary hand glass could be inserted at a moment's notice. The bracket is illustrated in the accompanying drawing. It is of the lazy tongs type, consisting of a series of brass links joined together after the manner of a ferryboat gate. These links are all of the same size, 6 inches long and 1/21 inch wide. Each of the links A is provided with three holes, one at the center and one at each end. One set of links is provided with tapped holes at the ends only, another set of equal number with tapped holes at the center only, and a third set of equal number with plain holes only.

At the end which is secured to the wall, or the dresser, a half-round piece B is provided, which consists of a  $1\frac{1}{2}$ -inch brass tube cut in two lengthwise. Plates C are soldered to the upper and lower ends of the piece B to provide lugs, through which the screws are passed that secure the bracket



FOLDING BRACKET FOR THE HAND GLASS.

to its support. Two pieces of tubing are procured, one with a half-inch outside diameter, and the other a half-inch inside diameter. The former is smoothed down with emery paper, so that it will slide easily into the latter. A section of the smaller tube is cut to form a pintle D, and three pieces E of the latter tube are fitted on to the pintle, the whole being secured to the half tube B by means of screws, which pass through the sections E and are threaded into the pintle D. Before the pintle is made fast a collar F, cut from the larger tube, is mounted thereon between the upper sections E. To the collar F a lug G is soldered. A detail of this is shown in the drawing, and it will be seen that the base of this lug is slit to form two ears, which are bent in opposite directions, and curved to fit the surface of the collar F. This construction provides a broad surface for soldering, and is made necessary by the fact that in use this point is subjected to a great strain. Between the middle and the lower sections E a sleeve H is mounted to slide. This sleeve is also cut from the larger tubing. A pair of lugs are soldered to this section, to receive one of the links of the lazy tongs between them. It will be observed that the lazy tongs consists of pairs of links alternating with single links, the latter being the ones with the plain holes. The links are held together by machine screws, and jam nuts are used to prevent them from working loose. It will be observed that the nuts for the center pivots are on one side of the lazy tongs, while those for the end pivots are on the opposite side.

At the opposite end of the lazy tongs the links connect to a pair of sleeves of the larger tubing, which slide on section J of the smaller tubing. Sections of the larger tubing are fastened to the tube J by means of screws, so as to form shoulders thereon. Soldered to the bottom of the tabe J is a strap K, which is bent to form a semicircle. The mirror is supported in a wire frame L, which is bent to the form indicated in the drawing. The upper ends of this frame are fitted with bolts M, soldered fast. The threaded ends of these bolts pass through openings in the ends of the strap K. A light spring on each bolt and a nut to press this spring against the strap K provide sufficient friction to hold the mirror at any desired angle. The hand glass may be slipped into or out of its holder at will.

# ELECTRIC COFFEE POT. BY HOWARD M. NICHOLS.

A simple electrically heated coffee pot can be made as follows:

Procure a round tin can of about two quarts capacity. This can should be about 5 inches in diameter



AN ELECTRIC COFFEE POT.

and should be open at one end. The open end should be round and smooth, so that a wooden cover can be easily fitted into it.

Cover the bottom and sides of the can with heavy felt, sticking it on with shellac. Put on a layer of electrician's tape over the felt, and stick a piece of fiber or cardboard on the bottom. Then give the whole outside of the coffee pot a couple of good coats of shellac. It is very important that this part of the

work be well done, since if the can is not properly covered with felt, the heat generated in the coffee pot will be conducted off so quickly by the air, that it will be impossible to boil water in it.

The next step is to make a cover for the can. This cover should be made from hard wood, should fit tightly, and should have a small hole in it to allow steam to escape. A standard water-proof lamp socket should be screwed to the inner side of the cover, and the leading-in wires should be brought out through small holes drilled in the cover for that purpose. Each wire should be brought through a separate hole, so as to avoid possibilities of a short circuit; and wherever there are live metal parts care should be taken to insulate them, as it is very easy to get a short circuit where all parts are exposed to steam.

The leads from the socket should be connected to a screw plug by a suitable length of flexible lamp cord.

Screw an ordinary 32-candle-power lamp in-

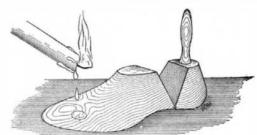
to the water-proof socket. Cover the joint with tape and shellac to keep the steam away from it.

The coffee pot is now complete, and all that is required is to fill the pot with water and coffee, put the cover on with the lamp projecting down into the pot, and screw the plug into the handiest lamp socket.

### AN IMPROVISED SHOE STRETCHER.

BY JOHN K. BRACHVOGEL,

Nearly every person, at some time or other, has wished he could stretch a shoe which at a particular point pinched the foot or irritated a corn. It is not necessary to go to a shoemaker to have the leather stretched. It can easily be done at home by means of a shoe tree of suitable form upon which an enlargement is formed at the necessary point. The enlarge-



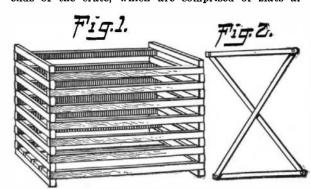
AN IMPROVISED SHOE STRETCHER.

ment must adhere firmly to the tree and must be of such a nature that it can be easily molded, and that it will not become detached from the tree when the latter is forced into the shoe. A material answering all these requirements is ordinary candle wax. Sealing wax might be used but the candle wax is preferable as it will not injure the tree, and as it is easier to manipulate. The enlargement is formed by dripping a suitable quantity of the melted wax upon the tree at the desired point, and molding the resulting excrescence into proper shape while the wax is plastic. It adheres to the tree with remarkable and unexpected tenacity, and owing to its waxy nature tends to slip easily into the shoe with the tree. The shoe can be slightly moistened at the troublesome part, to facilitate the stretching action.

# TABOURET MADE FROM AN ONION CRATE, BY WILLIAM P. GOEBEL.

The accompanying illustrations show how a simple crate, used in shipping potatoes or onions, can be readily converted into a tabouret or flower stand.

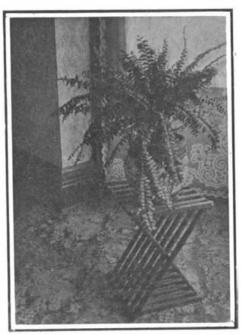
A crate such as shown in Fig. 1 can be secured from any grocer or from a vegetable dealer. The sides and ends of the crate, which are comprised of slats ar-



COMMON ONION CRATE AND THE REARRANGEMENT OF THE SLATS,

ranged as shown, are fastened at their corners by a long nail, passing through holes in the ends of the slats.

To construct a tabouret, the nails in each corner are withdrawn and the slats, being separated, are then



ARTISTIC POSSIBILITIES IN AN ONION CRATE.