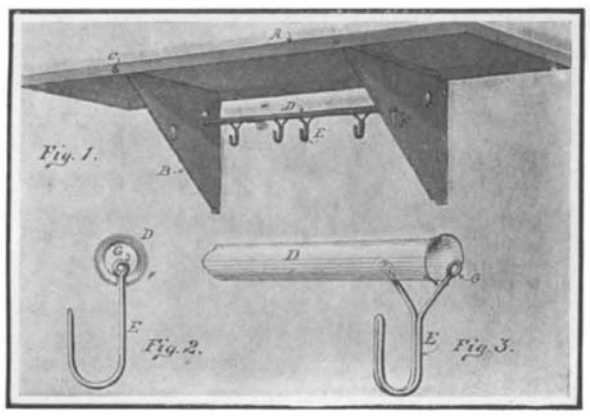
Patent Department

SHEET-METAL SHELF.

Pictured in the accompanying engraving is a shelf formed of sheet metal, which is so arranged that it may quickly be attached to a wall or other support, and as quickly detached and folded compactly for storage or transportation. The shelf proper consists

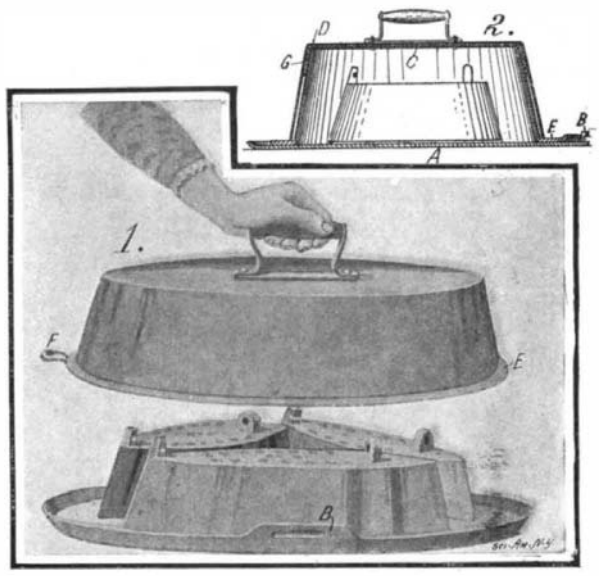


SHEET-METAL SHELF.

of a sheet-metal piece *A*, provided with depending flanges. The brackets *B* are pivoted on pins *C*, which are journaled in the flanges of the shelf. The brackets are also provided with flanges at the rear end, with holes for screws, with which the shelf is attached to the support. The brackets also support a pair of bars *D*, from which hangers *E* are suspended. The end of each bar is flanged outwardly, as indicated in Figs. 2 and 3. The brackets *B* are formed with openings *F*, shaped like a keyhole, that is, with an enlargement above to admit the flanged ends of the bar *D*, and a constricted portion for the body of bar, which is kept from slipping out by the flanged ends. The hangers *E* are formed of a single length of wire, bent double, as shown to the best advantage in Fig. 3. The ends of the hangers are formed with rings *G*. The bars *D*, which are hollow, are slotted lengthwise, and the ends of the hangers are introduced into this slot, while the rings *G* prevent them from slipping out. Either one or both bars may be used, and the hangers provide convenient support for various articles. It will be evident that the device may be folded up in a moment's time, the brackets lying within the flanges of the shelf *A*, so that the device occupies a minimum space. The inventor of this device is A. Dahl of 302 West 144th Street, New York city.

SAD-IRON HEATER AND RECEPTACLE.

When heating sad-irons on oil and gas stoves, there is danger of the irons becoming coated with soot, owing to their direct contact with the flames. In order to overcome this difficulty, the sad-iron heater illustrated in the accompanying engraving has been designed. It consists, in general, of a plate or tray adapted to rest on the stove, and a cover formed with a double wall in which insulating material is placed. In this way the flames are prevented from touching the irons, while the cover prevents the escape of the heat from the inside, and thereby accelerates the heating of the irons. In the engraving, the tray is indicated by the letter *A*. The rim of the tray has an extension *B* at one side, formed with a slot. The construction of the cover is clearly shown in the sectional view. It comprises an inside wall *C*, and an exterior wall *D*. The wall *C* is formed with a flange *E*, at the

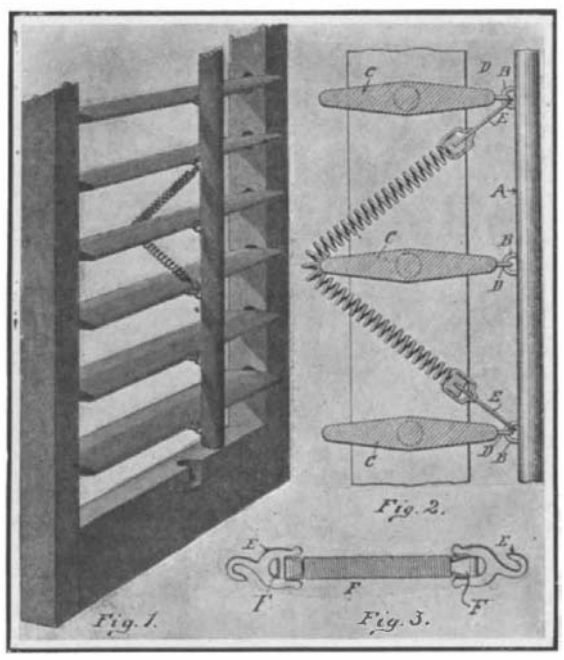


SAD-IRON HEATER AND RECEPTACLE.

lower edge, on which the edge of wall *D* rests. At one side, the flange *E* is extended to form a tongue *F*. Between the two walls of the cover, a layer of asbestos *G* is placed. This layer is placed only at the top of the cover, leaving an air space between the two walls at the sides, as shown. The handle of the cover is attached thereto by means of bolts, which pass through to the interior wall *C*, and serve to clamp the two walls together. When the device is not in use, the tongue *F* is slipped through the slot in the extension *B*, and the whole device may then be hung on a hook passing through an opening in the tongue. The inventor of this improved sad-iron heater is Mr. Frederick W. Wantzel of Rossmere, Lancaster, Pa.

SLAT ADJUSTER FOR WINDOW BLINDS.

The ordinary window blinds are not provided with any means for holding the slats open or closed, other than the friction of the slats themselves. When the slats work loose they are apt to close or open of their own weight or under action of the wind, and in stormy weather they are quite apt to rattle. This difficulty is overcome by using a device such as illustrated in the accompanying engraving. In the sectional view, Fig. 2, the slat rod is indicated at *A*. It is provided with the usual staples *B*, to which the slats *C* are secured by means of hooks or staples *D*. The slat adjuster consists of a coil spring, which passes over the end of one of the slats *C*, and is attached at each end to the staples *B* by means of hooks *E*. The tension of this spring is made adjustable by means of a U-shaped clip *F*, which is provided with fingers that engage the coils of the spring, as shown in Fig. 3. The hooks *E* are caught under the clips, and are free to adjust themselves to the various positions of the spring as the slats are moved to open or closed position. If desired, an ordinary coil spring terminating in a hook at each end may be used, as indicated in Fig. 1, but

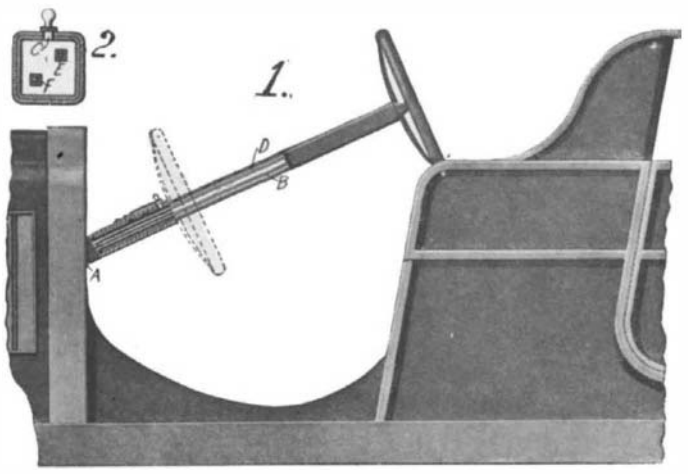


SLAT ADJUSTER FOR WINDOW BLINDS.

the adjustable spring is preferred, as it may be fitted to slats of different sizes, and the tension may be regulated to a nicety. With the adjuster in place, the slat bar is held tightly against the slats, preventing it from rattling, and the springs also prevent the slats from moving up or down after they have been set in a certain position. The inventor of this device is Mr. Ernst W. F. Herrmann, 314 Pas Hondo Street, San Antonio, Texas.

TELESCOPIC STEERING GEAR.

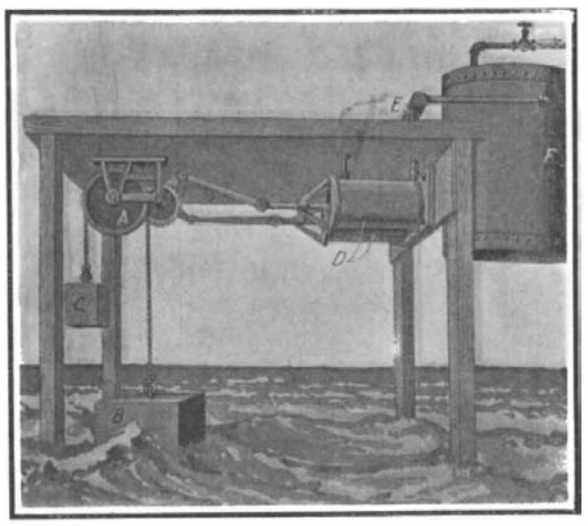
The most suitable position for the steering wheel of an automobile is to have the wheel close to the chauffeur's seat, and on an axis that lies at about twenty-three degrees from the horizontal, or even less. Unfortunately, with the steering wheel in this position, it is awkward for the driver of the machine to get into or out of the seat. Furthermore, the steering column acts as a bar to prevent occupants of the automobile from mounting or alighting from the machine on the chauffeur's side. To overcome these objections and yet keep the steering wheel at the most suitable angle, a telescoping type of steering column has recently been devised. As shown in the accompanying engraving, the steering column comprises two hollow members of approximately rectangular form (see Fig. 2), the member *A* being connected to the steering gear in the usual manner, while the member *B*, which carries the steering wheel, is arranged to slide within the member *A*. It is not essential that the two members be of rectangular form, but any other form will do, hexagonal, for instance, or oval, which will do away with the necessity of keying one to the other. In Fig. 1 the position of the wheel when the steering column is telescoped is indicated by dotted lines. The steering column may be extended to any degree desired by the driver of the machine, and locked in this position by a spring-pressed pin *C* on the member *A*, which is adapted to enter any of the perforations *D* spaced at regular intervals along the member *B*. Within the member *B* are the connections *E* and *F*, running to the spark device and throttle control. These connections are also of telescope construction, as indicated in Fig. 2. The inventor of this telescoping steering gear is Mr. C. J. Schoening, Box 112, Honolulu, E. H.



TELESCOPING STEERING GEAR FOR AUTOMOBILES.

WAVE AND GRAVITY MOTOR.

A recent patent describes a new form of wave motor, in which the power of the waves of the sea or ocean is utilized alternately with the power of gravity to operate an air compressor. The compressed air is stored in a reservoir, and may be piped to any point desired, so that the energy of the waves may be utilized at a considerable distance from the ocean. The apparatus comprises a platform built out over the water. A pulley *A* is attached to the under side of the platform, and a rope which passes over this pulley is fastened at one end to a large caisson or float *B*, while the other end carries a counterweight *C*. The float rises and falls under action of the waves, and the weight keeps the rope taut. The pulley is thus rotated back and forth by the action of the rope thereon. The pulley shaft is geared to a crank shaft, which operates the two pistons of the compressor. The two cylinders *D* of the compressor are provided with valve-controlled outlet passages, which communicate with a common pipe *E* connected to the reservoir *F*. The weight and float are so proportioned, that a lowering of the water level causes a lowering of the float and a raising of the weight, while when the water level rises, the weight is sufficiently heavy to cause a positive rotation in the reverse direction of the pulley shaft. Thus, the weight rotates the shaft in one direction by gravity, and the float rotates the shaft in the opposite direction when the waves recede. To simplify the construction, the cylinders *D* are left open at one end, and no inlet valve is provided other than the piston washer. A very simple form of outlet valve is used, consisting of a conical plug, which is lifted by the compression of the air in the cylinders, but is prevented from rising too far by a hooked stem, which engages the lower end of the valve. A patent on this



WAVE AND GRAVITY MOTOR.

wave and gravity motor has been secured by Mr. Allen T. Ransom, 44 Scholes Street, Brooklyn, N. Y.

In 1907 the United States produced 166,000,000 barrels of oil, and in 1908, according to unofficial estimates, the total was more. The United States produces 63.12 per cent of the entire oil production of the world.