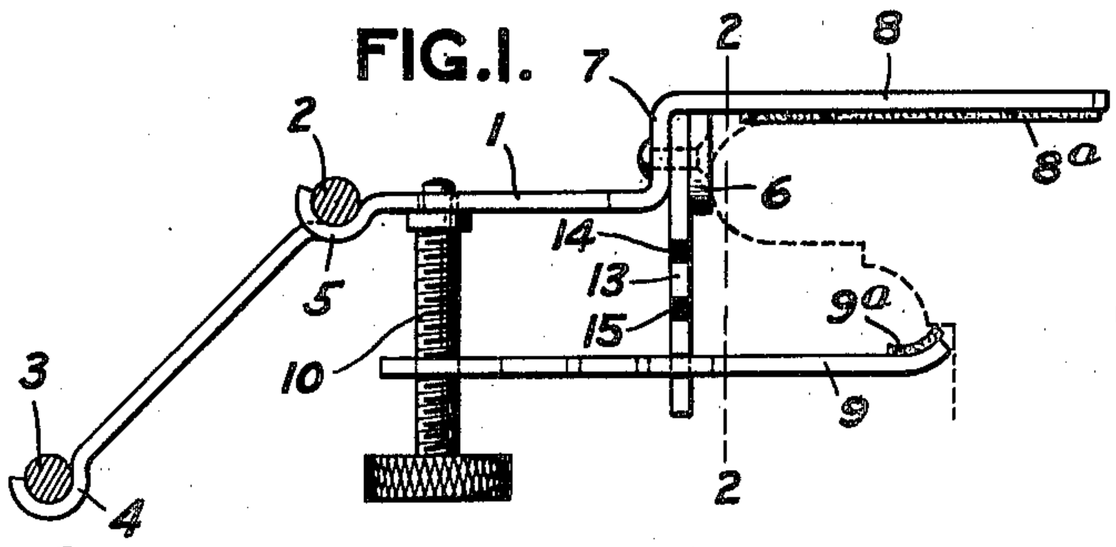
H. R. LANGSLOW.

CLAMP FOR RACKS AND LIKE DEVICES.

APPLICATION FILED JAN. 21, 1909.

934,676. Patented Sept. 21, 1909.

FIG. 1.



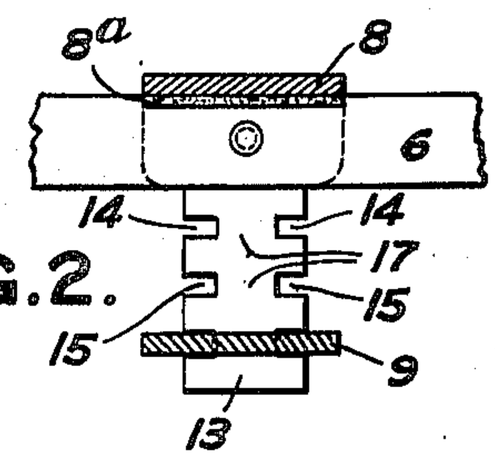
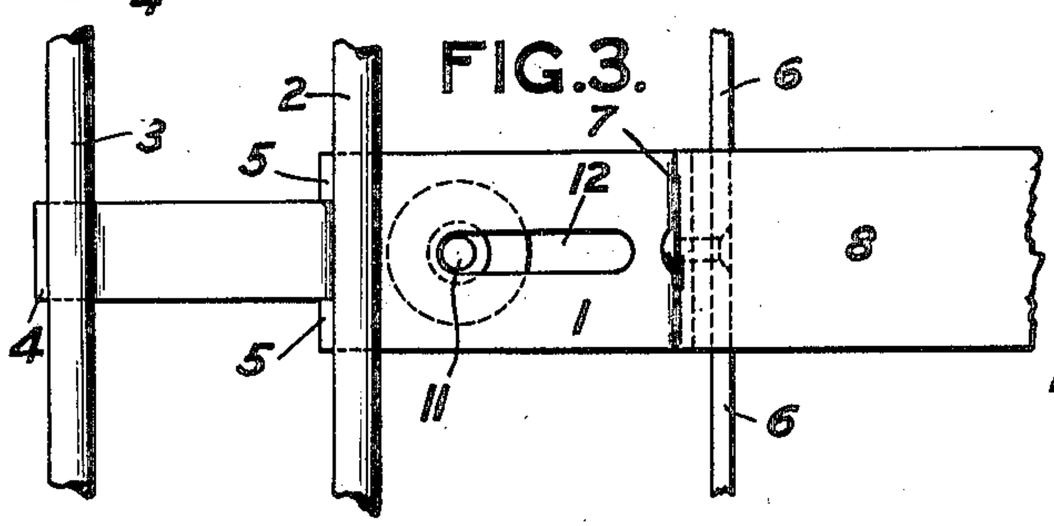


FIG. 2.

FIG. 4.

FIG. 3.



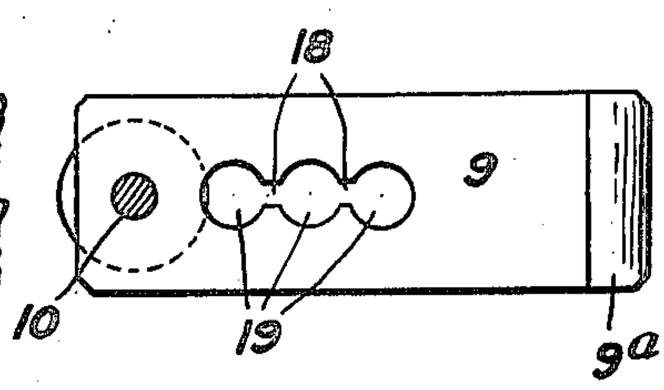


FIG. 7.

FIG. 5.

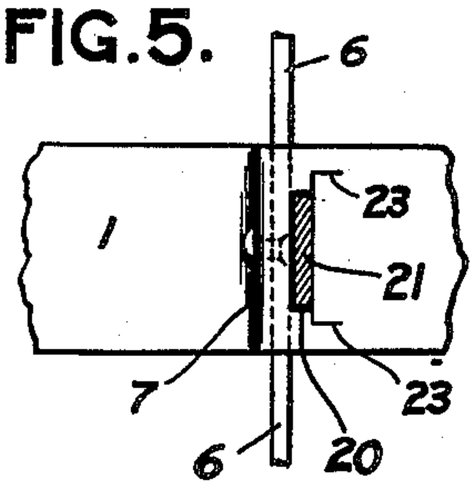
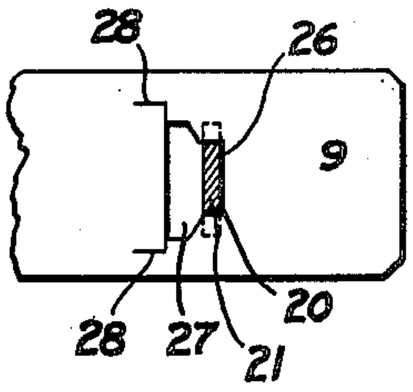
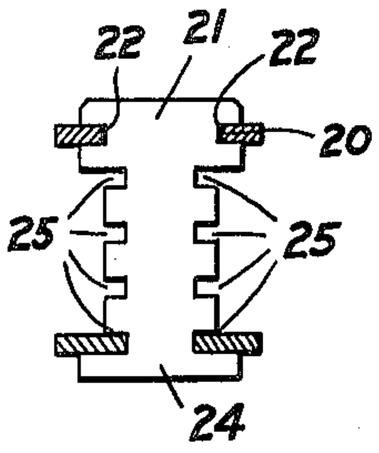


FIG. 6.





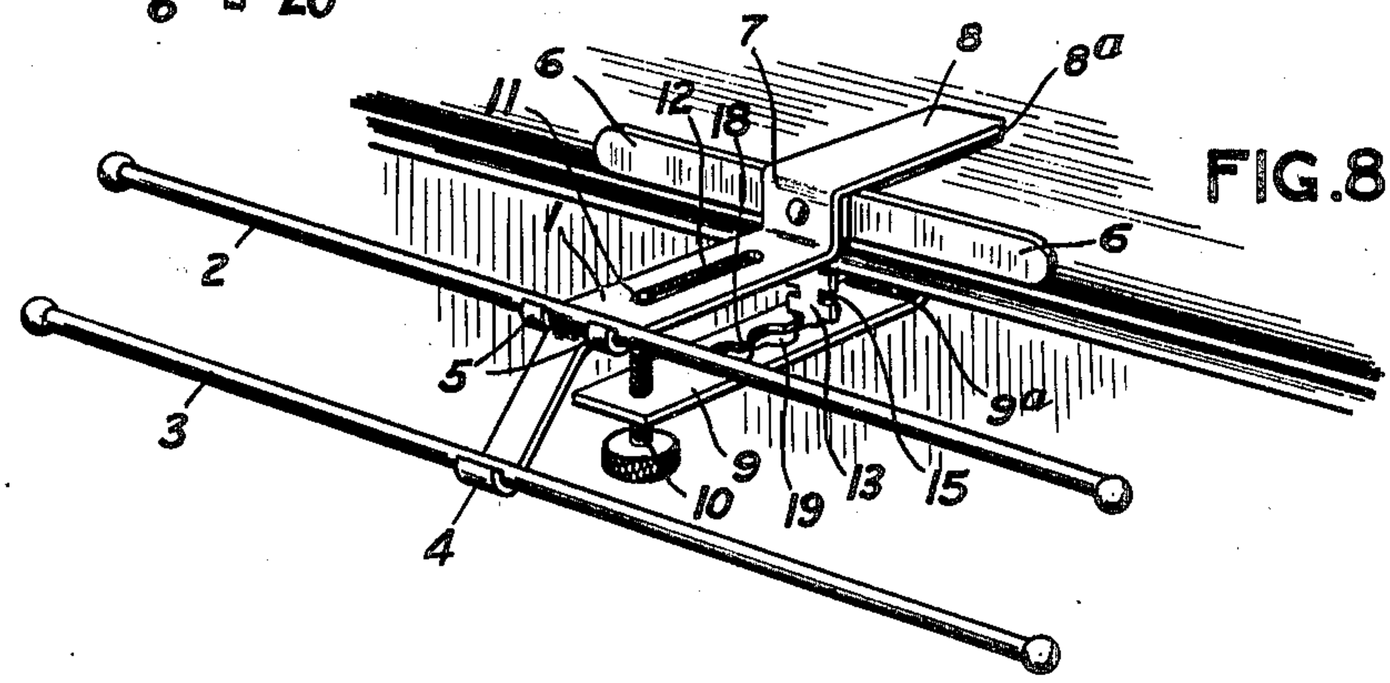


FIG. 8.

WITNESSES:

L. Thow

C. W. Carroll

INVENTOR:

Harry R. Langslow

by Osgood & Davis

his attys

UNITED STATES PATENT OFFICE.

HARRY R. LANGSLOW, OF ROCHESTER, NEW YORK.

CLAMP FOR RACKS AND LIKE DEVICES.

934,676. Specification of Letters Patent. Patented Sept. 21, 1909.

Application filed January 21, 1909. Serial No. 473,578.

To all whom it may concern:

Be it known that I, HARRY R. LANGSLOW, a citizen of the United States, and resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Clamps for Racks and Like Devices, of which the following is a specification.

This invention relates to clamps for racks and like devices, and consists in the apparatus hereinafter described and claimed.

The object of the invention is to provide a simply constructed and strong clamp that is easily attachable to the edge of a table, chiffonnier, shelf, bureau, &c.

In the drawings:—Figure 1 is a side elevation of an apparatus embodying this invention; Fig. 2 is an elevation of the adjustable connector between the two parts of the clamp, showing said two parts in section; Fig. 3 is a top plan view of the same device shown in Fig. 1, the supporting rods of the rack being broken off to economize space; Fig. 4 is a top plan view of the bottom plate of the clamp; Fig. 5 is a top plan view of a part of the operating plate of the clamp of a modified construction showing the adjustable connection between the two clamping parts in section; Fig. 6 is a plan view of a part of the lower clamping plate, showing the adjustable connection in section; Fig. 7 is an elevation of the adjustable connector between the two parts of the form of clamp shown in Figs. 5 and 6, and in which the two parts of the clamp are shown in section; and Fig. 8 is a perspective view of an apparatus embodying this invention.

The device consists of a supporting plate 1, which forms the upper member of the clamp. This supporting plate is adapted to bear a suitable number of rods 2, 3, held preferably at their middle points upon said supporting plate, and extending horizontally and at right angles thereto. A convenient way of fastening the rods to the supporting plate is shown in Figs. 1, 3 and 8. The lower rod 3 is set in the bent portion 4, which fits around the rod 3, and preferably, when the rod is in place, the two parts are soldered together.

Hooks 5, 5, formed up from part of the plate 1, extend each more than half around the rod 2, and said rod is preferably soldered to the hooks and to the plate 1. Where only a single rod is employed, it is fastened to the end of the plate 1, as shown at 4. It is clear that several rods may be fastened to the plate 1 by the method shown.

Lateral bearing wings or flanges 6, 6, are provided on the plate 1, in order to form a broad bearing and a suitable guide to rest against the edge of the table or other object of furniture to which the device is attached, and preferably these wings are set in a vertical plane, and the plate 1 is bent so as to have a vertical portion 7 between said wings and a terminal portion 8 adapted to rest on the top of the table or piece of furniture.

A movable clamping member coöperating with the plate 1 is provided, which must be capable of adjustment to table tops, &c., of different thicknesses, and for this purpose the following construction is employed:—The lower clamp plate 9 carries a screw 10 near the end opposite to that which bears against the table top, and this screw is employed for producing the clamping effect. As will be clear, the screw runs in threads in the plate 9, and has a bearing against the plate 1. Preferably a reduced tip 11 of the screw thread passes through a socket or slot 12 in the upper plate, and forms a bearing and guide for the screw. At a suitable point, a connector or fulcrum plate 13 is fixed to the upper plate 1 in any suitable manner, and is provided with pairs of lateral notches 14, 15, of any suitable number. The side edges of the connector are parallel, and the webs 17 between the notches are of equal width. A slot 18 arranged longitudinally in the plate 1 is of sufficient dimensions to permit the passage of the fulcrum plate 13, and each of a series of transverse enlargements 19 in the slot 18 is of such dimensions as to fit on the webs 17 and in the slots 14 or 15, and to hold the plate 13 in position in any one of said enlargements. The length and width of the enlargement 19 are substantially the same as the width of the webs 17 between the bottoms of the lateral notches 14, 15, so that the connector or fulcrum is adjustable for height in any one of said enlargements, and when set transversely in any enlargement cannot shift therein.

The connector 13 and the cross-bar 6 may be made of separate pieces and riveted to the vertical portion 7 of the upper clamp piece 1.

It will now be seen that by unscrewing the screw 10, until its end 11 disengages from the plate 1, the plate 9 may be rotated through a quarter of a circle, and then said

lower plate 9 may slide up or down upon the connector or fulcrum plate 13, until it may be set in any one pair of the notches desired, in order to take in the edge of any piece of furniture to which the rack is to be clamped, and the lower clamp plate 9 may be adjusted longitudinally on the connector so as to project to different distances under the edge of the piece of furniture. Then the plate 9 is turned back until the screw may take the position shown in Fig. 1, and then on placing the device upon the edge of the piece of furniture, the screw may be turned until a sufficient clamping action is produced.

Another convenient way of attaching the adjustable connector or fulcrum piece is shown in Figs. 5, 6 and 7. The upper plate 1 has a transverse slot 20 cut in it, which is adapted to fit closely around the portion of the connector or fulcrum piece 21, and into notches 22 near its upper end. The enlarged end above the notches may be put in place by cutting L-shaped slots 23 through the metal of the plate 1, and extending from the corners of the slot 20. By tipping up the tongue of metal thus formed by the slots 23, an aperture is formed of sufficient size to permit the passage of the upper end of the connector or fulcrum plate 21, whereupon it may be set in the slot 20, and then the tongue may be returned to place, thus firmly fastening the two parts together.

The lower end 24 of the connector or fulcrum plate 20 is wider than the intermediate portion, which intermediate portion has lateral pairs of notches 25, set opposite each other. The lower plate 9 has a slot 26 having a cross-section substantially equal to that of the connecting piece between the bottoms of the pairs of notches 25, so that when this portion is forced into the slot 26, it will be held firmly there. A somewhat enlarged slot 27 is contiguous to and connects with the slot 26, and is of sufficient area to permit the longitudinal movement of the connector or fulcrum plate 21, in order to move the same longitudinally to place any pair of notches 25 in the slot 26.

In order to place the connecting piece in position, L-shaped slots 28 are formed, extending from the corners of the slot 27, whereby when the tongue produced by said L-shaped slots 28 is tilted upward, the enlarged lower end 24 may be inserted through the aperture thus formed, and then said tongue may be returned to place, locking the connector in position, and preventing its separation from the plate 9. The mode of shortening or lengthening the distance between the plates 1 and 9 by this last device will now be entirely clear.

What I claim is:—

1. In a clamp for racks and like devices, a clamping member adapted to bear upon the edge of a table or like piece of furniture; a second clamping member coöperating with the first; one of said members having a slot; an adjustable connector and fulcrum piece having a series of edge notches, whereby when in one position the connector is movable through the slot and in other positions the edge notches engage the edge of the slot whereby the distance of the clamping members from each other is varied; and means for actuating the clamping members to produce the clamping effect.

2. In a clamp for racks and like devices, a clamping member adapted to bear upon the edge of a table or other like piece of furniture; a second clamping member coöperating with the first; one of said members having a slot; an adjustable connector and fulcrum piece attached to the other clamping member and having a series of edge notches and movable through the slot when the clamping members are set at an angle with each other and interlocking by said edge notches when the clamping members are in clamping alinement, whereby the distance of the clamping members from each other is varied; and means for actuating the clamping members to produce the clamping effect.

3. In a clamp for racks and like devices, a clamping member having a bearing portion for resting on the edge of a table or other like piece of furniture; a second clamping member coöperating with the first and adapted to engage the lower face of the table or other piece of furniture; an adjustable connector and fulcrum piece constructed to vary the distance of the clamping members from each other and their relative longitudinal working positions; and means for actuating the clamping members to produce the clamping effect.

4. In a clamp for racks and like devices, a clamping member having a bearing portion for resting on the edge of a table or other like piece of furniture; a second clamping member coöperating with the first and adapted to engage the lower face of the table or other piece of furniture; an adjustable connector and fulcrum piece attached to one of said clamping members and adjustable in the other and constructed to vary the distance of the clamping members from each other and their relative longitudinal working positions; and means for actuating the clamping members to produce the clamping effect.

5. In a clamp for racks and like devices, a plate adapted to rest upon the edge of a table or like piece of furniture; a second plate coöperating with the first for clamping the edge of the table or like piece of furniture and having a longitudinal slot provided with one or more enlargements; an adjustable connector and fulcrum piece attached to one of said members and having pairs of

opposed lateral notches and adapted when set longitudinally to pass through the other member and to engage the same by any pair of notches in an enlargement when set transversely; and means for actuating the clamping members to produce the clamping effect.

6. In a clamp for racks and like devices, a plate adapted to rest upon the edge of the table or like piece of furniture; a transverse plate carried by said clamping plate for resting against the vertical edge of said table or like piece of furniture; a second plate coöperating with the first for clamping the edge of the table or like piece of furniture and having a longitudinal slot provided with one or more enlargements; an adjustable connector and fulcrum piece attached to one of said members and having pairs of opposed lateral notches and adapted when set longitudinally to pass through the other member and to engage the same by any pair of notches in an enlargement when set transversely; and means for actuating the clamping members to produce the clamping effect.

7. In a clamp for racks and like devices, a plate adapted to rest upon the edge of a table or like piece of furniture; a second plate coöperating with the first for clamping the edge of the table or like piece of furniture and having a longitudinal slot provided with one or more enlargements; an adjustable connector and fulcrum piece attached to one of said members and having pairs of opposed lateral notches and adapted to pass through said slot in the other member, and to engage by means of the notches when set transversely in the enlargements of said slot, and to move longitudinally through said member when set lengthwise in said slot; and means for actuating the clamping members to produce the clamping effect.

HARRY R. LANGSLOW.

Witnesses:
D. GURNEE,
L. THON.