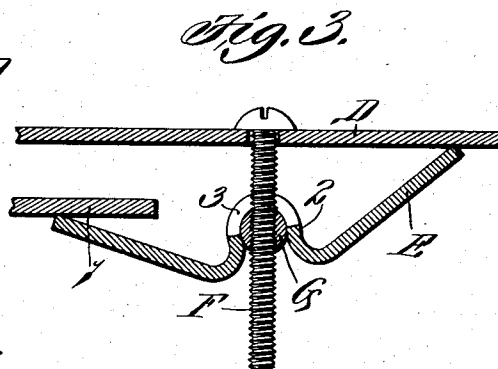
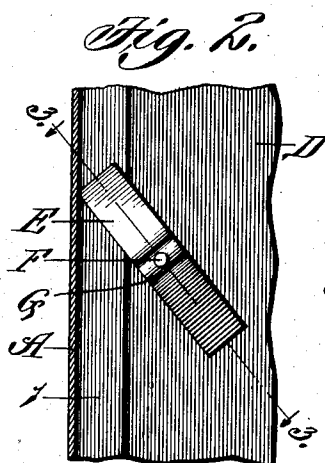
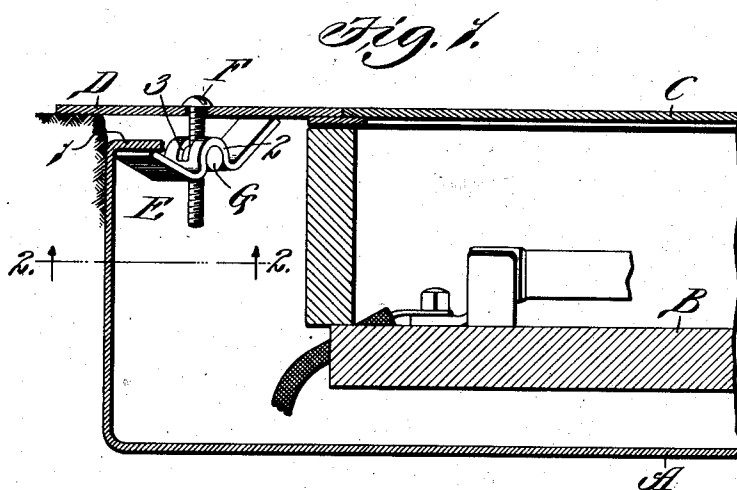


L. H. ARENS.
FASTENING DEVICE.
APPLICATION FILED OCT. 22, 1912.

1,062,075.

Patented May 20, 1913.



Witnesses:
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UNITED STATES PATENT OFFICE.

LLOYD H. ARENS, OF ST. LOUIS, MISSOURI, ASSIGNOR TO FRANK ADAM ELECTRIC COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

FASTENING DEVICE.

1,062,075.

Specification of Letters Patent.

Patented May 20, 1913.

Application filed October 22, 1912. Serial No. 727,116.

To all whom it may concern:

Be it known that I, LLOYD H. ARENS, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Fastening Devices, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to fastening devices of the type which comprise a clamping member arranged on one side of the object that is to be retained in position, and an adjustable actuating member for causing said clamping member to engage a stationary part of the structure with which said object is used so as to securely hold said object in position and prevent it from moving relatively to said stationary part.

One object of my invention is to provide a fastening device of the type referred to which is so designed that the clamping member will grip the stationary part of the structure firmly and will not be liable to slip off of same when the adjustable actuating member of the device is tightened.

Another object is to provide a fastening device which is so constructed that the adjustable actuating member will not cant or assume an angular position when it is being screwed up so as to bring the clamping member into snug engagement with the parts with which it coöperates. And still another object is to provide a fastening device in which the clamping member is so constructed that it will bear upon the stationary part of the structure and also upon the movable part that is to be secured in position even though said movable part is spaced away some distance from the stationary part of the structure.

Other objects and desirable features of my invention will be hereinafter pointed out.

I have herein shown my improved fastening device as being used for securing the removable front or frame of a panel board cabinet in operative position but I do not wish it to be understood that my invention is limited to a fastening device designed for this particular purpose as the device can be used for various other purposes.

Figure 1 of the drawings is a horizontal

sectional view of a portion of the panel board cabinet whose front or removable frame is retained in position by fastening devices constructed in accordance with my invention; Fig. 2 is a vertical sectional view taken on the line 2—2 of Fig. 1 looking in the direction indicated by the arrow; and Fig. 3 is an approximately horizontal sectional view taken on the line 3—3 of Fig. 2.

Referring to the drawings which illustrate the preferred form of my invention, A designates the body portion of a panel board cabinet which consists of a box or casing that is set in a wall so as to form a housing for a panel board B, said box being preferably formed from sheet metal and provided at its front edge with an inwardly projecting portion or flange 1 that extends parallel to the rear wall of the box, as shown in Fig. 1. The front of the cabinet is removable, and preferably consists of a door C and a frame D that surrounds said door and which is wide enough to lap over the opening in the wall in which the cabinet A is arranged. Said frame D is retained in position and secured to the flanges or inwardly projecting members 1 on the front edge of the cabinet A by means of a plurality of fastening devices, each of which consists of a clamping member E arranged behind the frame D or on the inside of the cabinet, and an adjustable actuating member F that passes through an opening in the frame D and projects into a bearing member G carried by the clamping member E. The bearing member G is preferably located intermediate the ends of the clamping member E, and it is connected to said clamping member in such a manner that the clamping member can turn or rock on the member G as a fulcrum. In the preferred form of my invention as herein shown, the clamping member E consists of a strip of metal bent intermediate its ends so as to form a substantially horseshoe-shaped part 2 that surrounds the bearing member G which is cylindrical-shaped. The bearing member G is provided with a transversely extending screw-threaded opening through which the adjustable actuating member F passes, as shown in Fig. 3, and the curved or horseshoe-shaped portion 2 of the bearing member E is provided with an elongated

slot 3, as shown in Figs. 1 and 3, so as to form a clearance for the actuating member F and thus permit the clamping member E to rock or turn on the bearing member G. By connecting the actuating member and clamping member together in this manner a universal connection is provided which permits the clamping member to assume various angular positions without affecting the adjustable actuating member. When the device is used for the purpose herein illustrated the adjustable actuating member F is passed through the opening in the removable front frame D of the cabinet and is screwed into the bearing member G of the clamping member, the member F being turned or screwed up until the clamping member E is drawn into engagement with the inner face or under side of the inwardly projecting flange 1 on the cabinet A. As the operator continues tightening or screwing up the adjustable actuating member F the clamping member E will rock on the bearing member G and its outer end will bear against the inner face or under side of the frame D, as shown in Figs. 1 and 3, thereby causing the frame D to be pressed tightly against the wall in which the cabinet is set.

One advantage of a fastening device of the construction above-described is that the clamping member bears firmly upon the stationary part of the structure, namely, upon the flange 1 of the cabinet, and is not liable to slip off of same owing to the fact that it is connected to the adjustable actuating member F by a universal connection which permits the clamping member to assume an acute angular position with relation to the adjusting member F. Another advantage of such a device is that there is no tendency for the adjustable actuating member F to cant or turn when it is tightened up and consequently the head of said member will bear evenly upon the front face of the removable part D of the structure with which the device is used. No matter how much the member F is tightened there is no tendency for said member to assume an angular position or for the clamping member to slip off the stationary part 1 of the structure for the screw-threaded bearing member G through which the actuating member F passes engages the clamping member E midway the ends of same and in such a manner that said clamping member can turn or oscillate on the bearing member G as a fulcrum, this being true even though the cabinet A is set so far into the wall that the removable front D is spaced some distance away from the flange 1 against which the clamping member E bears. And still another advantage of the device is that it is self-adjustable, the device being so constructed that it will search for its bearing

and after having found same will tend to produce friction between the two parts.

A fastening device of the construction above-described is inexpensive to manufacture; it can be operated easily, and there is no liability of its being rendered inoperative by screwing up too much on the actuating member F owing to the fact that the frictional engagement of the clamping member E on the bearing member G will be increased as the member F is tightened.

While I have herein shown the adjustable actuating member passing through the movable part of the structure and threaded into the bearing member on the clamping member it is not essential that the device be arranged in this manner in some classes of work or that the actuating member be threaded into said bearing member for the adjustable actuating means of the device could be constructed in various other ways without departing from the spirit of my invention.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A fastening device comprising a clamping member adapted to engage a movable part and a stationary part of the structure, an adjustable actuating member passing through one part of the structure, and a bearing member cooperating with said actuating member and permanently connected to said clamping member in such a manner that said clamping member can assume an acute angular position with relation to said actuating member.

2. A fastening device comprising a clamping member consisting of a strip of metal bent intermediate its ends to form a curved portion, a bearing member permanently arranged in the curved portion of said clamping member, and an actuating device passing through an elongated slot in the curved portion of said clamping member and through an opening in said bearing member.

3. A fastening device consisting of a screw-threaded actuating member, a bearing member mounted on said actuating member, and a clamping member rockably mounted on said bearing member and consisting of a strip of metal bent intermediate its ends so as to form a curved part which partially surrounds said bearing member.

4. A fastening device comprising a screw-threaded actuating member provided with a head, a bearing member mounted on said actuating member, a clamping member rockably mounted on said bearing member and having laterally projecting portions which are bent upwardly or toward the head of said actuating member.

5. A fastening device comprising an adjustable actuating member and a clamping member joined together by a universal con-

nection which permits the clamping member to rotate and also rock transversely of the actuating member.

5 6. A fastening device comprising an adjustable actuating member, a cylindrical-shaped bearing member mounted on same, and a clamping member rockably mounted on said bearing member.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, 10 this seventeenth day of October, 1912.

LLOYD H. ARENS.

Witnesses:

WELLS L. CHURCH,
GEORGE BAKEWELL.