H. B. NEWHALL.

CABLE CLAMP.

APPLICATION FILED APR. 5, 1907.

899,757.

Patented Sept. 29, 1908.

Fig. 1.

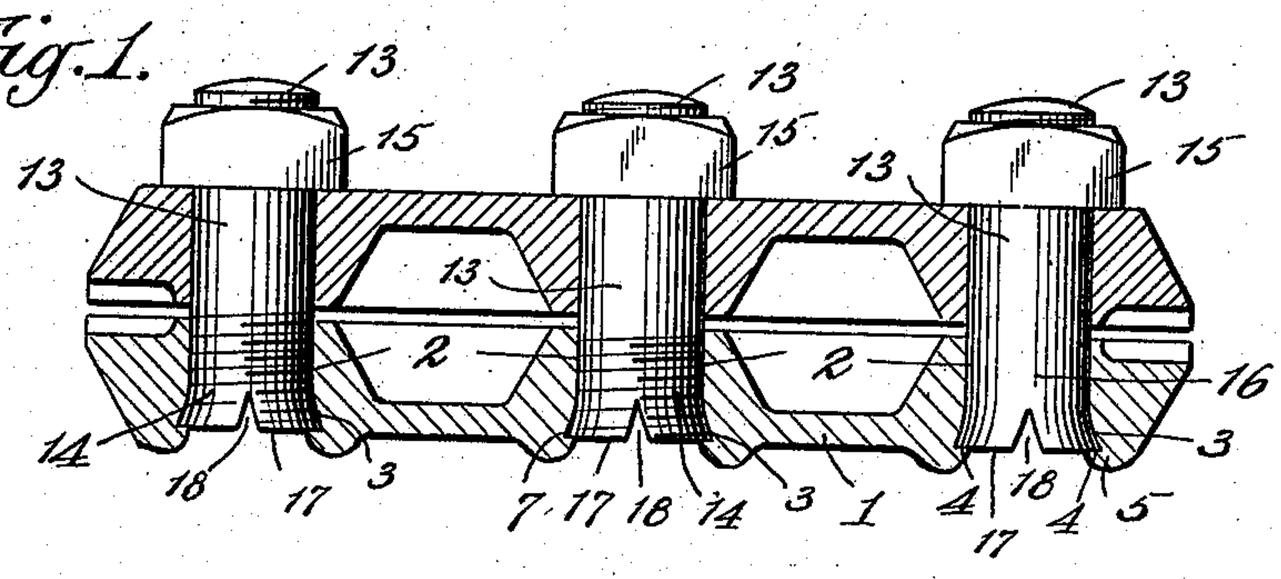


Fig. 2.

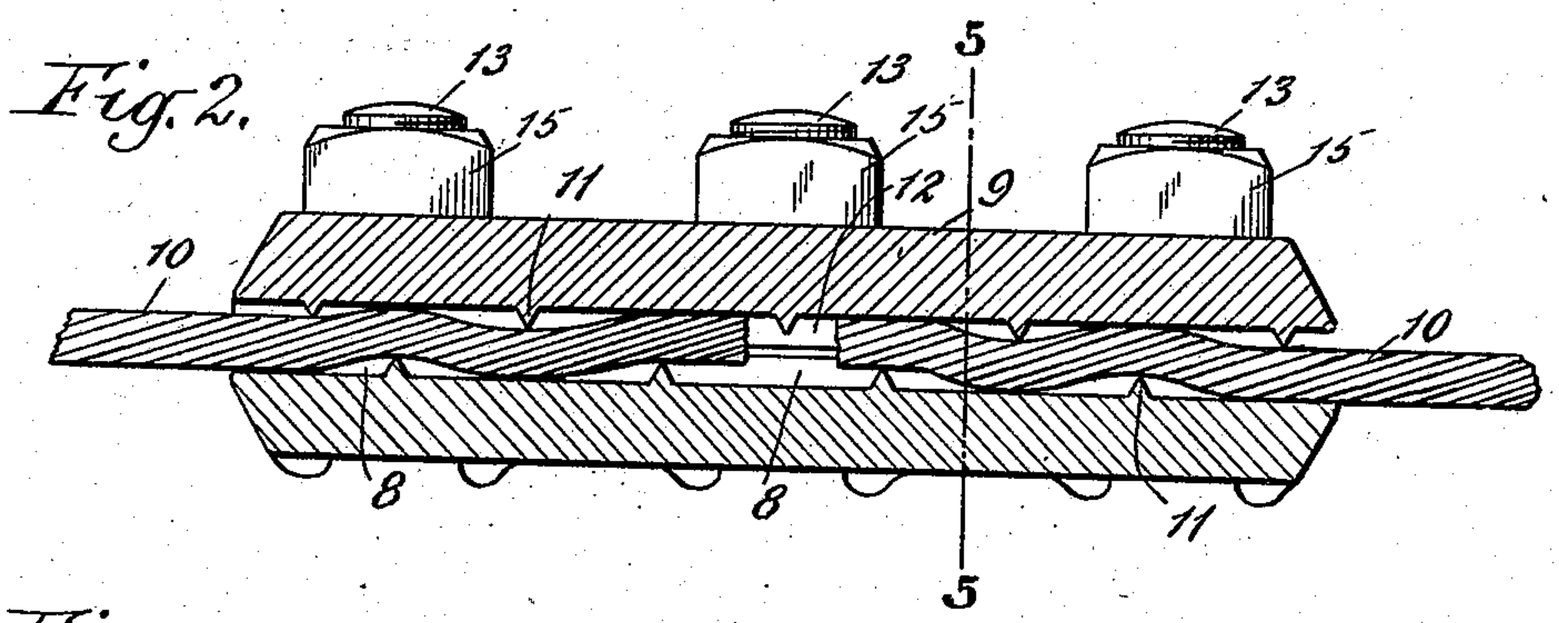


Fig. 3.

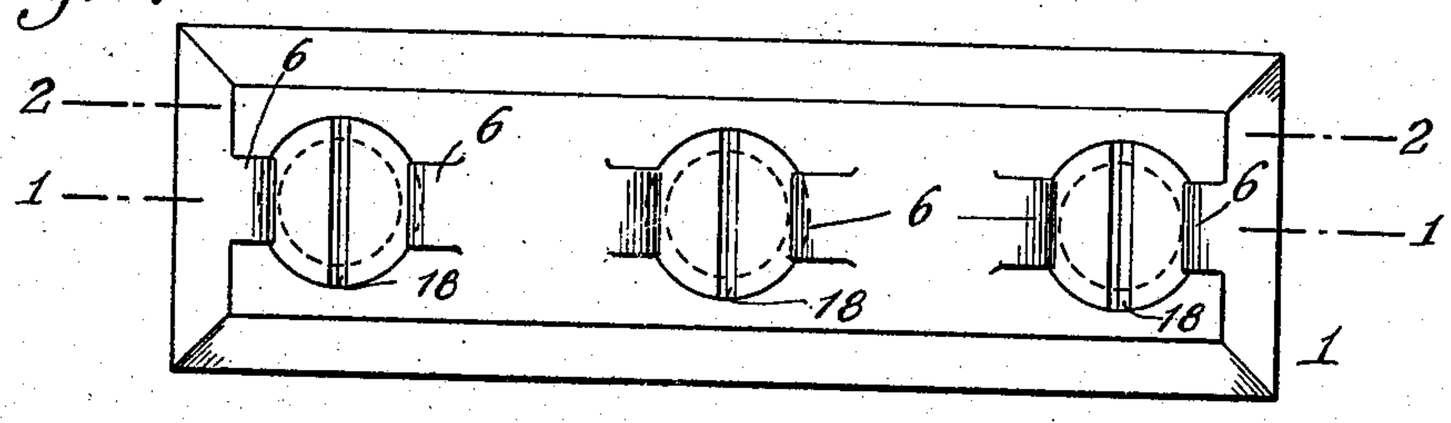


Fig. 4.

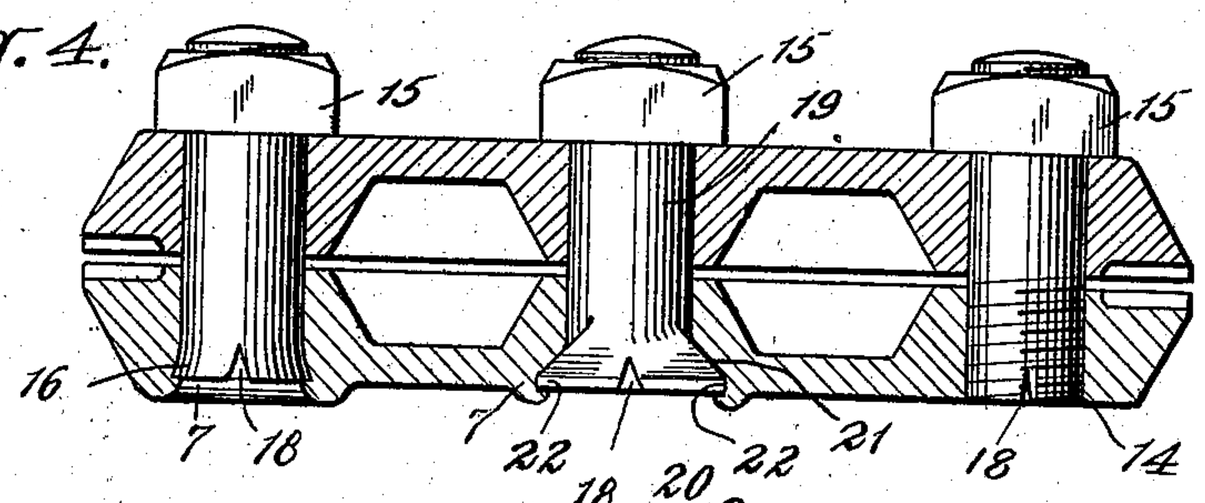
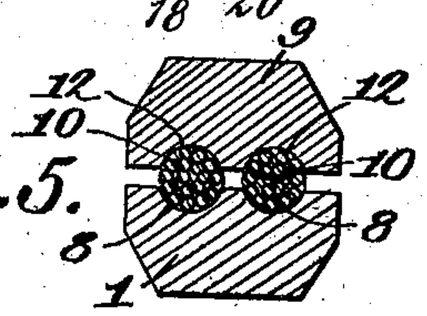


Fig. 5.



WITNESSES

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CABLE-CLAMP.

No. 899,757. Specification of Letters Patent. Patented Sept. 29, 1908.

Application filed April 5, 1907. Serial No. 366,633.

To all whom it may concern:

Be it known that I, HENRY B. NEWHALL, a citizen of the United States, residing at Plainfield, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Cable-Clamps, of which the following is a specification, taken in connection with the accompanying drawing.

In the accompanying drawings in which the same reference numeral refers to similar parts in the several figures, Figure 1 is a longitudinal vertical section on the line 1—1 of Fig. 3. Fig. 2 is a longitudinal vertical section on the line 2—2 of Fig. 3. Fig. 3 is a plan view of the clamp shown inverted. Fig. 4 is a longitudinal vertical section of the clamp showing a slightly modified form. Fig. 5 is a cross section on the line 5—5 of Fig. 2.

In the illustrative embodiment of this invention shown in the drawings, 1 is a back which may be made of cast iron or any other suitable material. This back is cast so as to form apertures 2, 2, the lower ends of which are formed flaring at 3, 3 and preferably ending in a shoulder 4 formed by the inwardly extending portion 5 of the back. These shoulders 4 may be formed by casting lugs 6, 6 upon the back 1 as shown in Fig. 3, or the back may be cast so as to form circular hollow annular recesses 7 as shown in Fig. 4. Or the flaring opening and shoulders may be omitted as shown on the right of Fig. 4. However, in each instance the studs are permanently locked in the back and preferably do not extend beyond the surface of the back. The securing member 14 shown on the right of Fig. 4 is locked to the back by spreading its end so as to upset or mar its screw threads. On either side of these apertures 2 formed in the clamp, I preferably cast grooves 8 which with the complementary groove 12, cast in the cover 9, form a seat for the ends of the wire cable 10, 10. To more firmly grip the wire cable I may cast teeth 11, 11 upon the back and cover so that they project within the grooves 8 and 12 respectively though these teeth may be omitted, if desired.

To fasten the cover 9 upon the back 1 I use a series of studs 13, 13 which may be screw-threaded at their lower ends, as shown at 14, 14, Figs. 1 and 4, so as to screw into the back 1 and also formed with screw threads at their other ends to receive the nuts 15, 15, or if desired, they may be only screw-threaded to receive the nuts 15, the other end being left blank as shown at 16, in Figs. 1 and 4.

To more securely fasten the studs within the back I may positively lock them within the apertures 2, 2 by expanding their lower ends 17, 17 by any suitable means so as to spread these ends of the studs behind the shoulders 4, 4 of the back. This may be readily done by the use of any instrument having a wedge-shaped head, not shown, which would make the openings 18, 18 in the bolts, though, of course, it is to be understood that any other suitable means may be employed to spread the end 17 of the stud laterally into the annular recess 7 or back of the ends of the lugs 6, 6. Ordinarily the end of the stud will be so firmly secured in the aperture 2 and the annular recess 7 that it would have no relative rotation with relation to the back 1. If desired, however, a bolt 19, Fig. 4, may be used having a squared head 20 fitting into a square recess 21. In this form the bolt would also be firmly secured in the back by pressing out the ends 22, 22, of the head 20 by any suitable means so that it will be forced into the annular recess 7 when the bolt would be held to the back in substantially the same manner as the studs in the other figures of the drawing.

Having thus described this invention in connection with several illustrative embodiments thereof, to the details of which I do not desire to be limited, what is claimed as new and what is desired to secure by Letters Patent is set forth in the appended claims.

1. In a clamp, a back having a series of flaring apertures, securing members fastened to the back within the aperture and having their lower ends screw-threaded and spread into said flaring apertures to coöperate with said flared portions of the apertures, a cover and means for securing the back to the cover.

2. In a clamp, a back having a series of flaring apertures and rigid shoulders, securing members fastened in the apertures and spread to coöperate with the flaring portion of the apertures and the shoulders, a cover and means for securing the cover to the back.

3. In a clamp, a back having one or more screw-threaded flaring apertures, one or more studs screw-threaded at both ends, to coöperate with the screw threads in the back, the lower portion of the studs being forced laterally into the flaring portion of the aper-

tures, a back, and nuts to coöperate with the screw threads upon the other end of the studs to fasten the back to the cover.

4. In a clamp, a back having screw-threaded apertures flaring at their lower ends, rigid shoulders beneath the screw-threaded portion of the apertures, studs screw-threaded at both ends the lower screw-threaded end to coöperate with the screws in the apertures, the lower portion of the stud being pressed laterally to coöperate with the flaring portion of the aperture, a cover and nuts to cooperate with the other screw-threaded ends to secure the cover upon the back.

5. In a clamp, a back having screw-threaded apertures terminating in rigid shoulders, screw-threaded stud coöperating with the screw threads in the apertures, the lower portion of the studs being pressed outwardly to coöperate with the shoulders, a cover, and nuts to coöperate with the screw threads upon the other ends of the studs to hold the back to the cover so as to clamp the cable.

6. In a clamp, a back having one or more screw-threaded apertures, one or more studs screw-threaded at both ends, the screw threads on one end coöperating with the screw threaded apertures in the back, a cover, and nuts to coöperate with the other screw-threaded portions of the studs to secure the cover to the back and clamp a member between the back and cover, said studs being locked to the back but not projecting beyond the surface of the back.

7. In a clamp, a back having one or more apertures, one or more securing members provided with screw-threads at each end located in the apertures of the back but not extending substantially beyond the outer surface of the back, the end of the securing member or members in the back being spread or upset to permanently and substantially immovably secure the securing member in the back, a cover having one or more plain or non-screwthreaded apertures to fit over the other end or ends of the securing member or members and one or more nuts to detachably lock the cover to the back.

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