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W. F. GREATHEAD ET AL

C-CLAMP

Filed Aug. 25, 1923

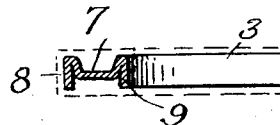
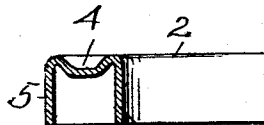
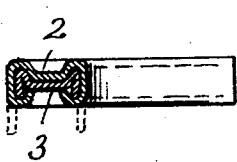
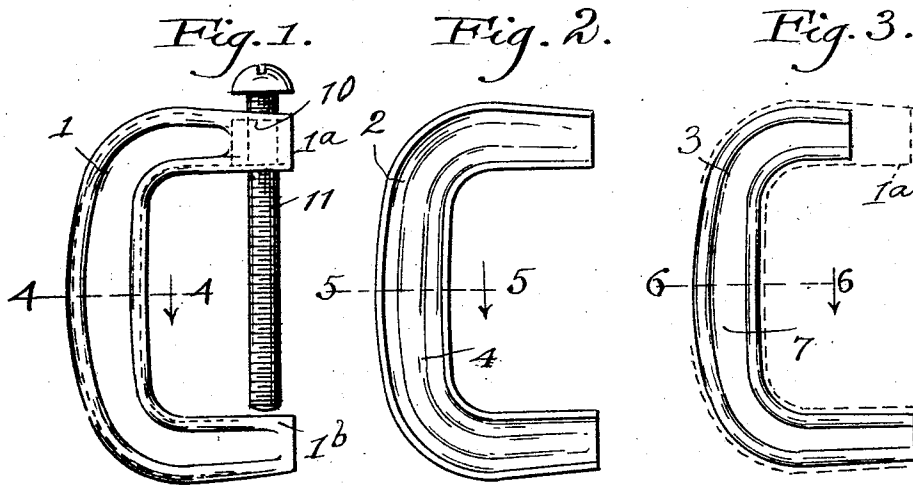


Fig. 4.

Fig. 5.

Fig. 6.

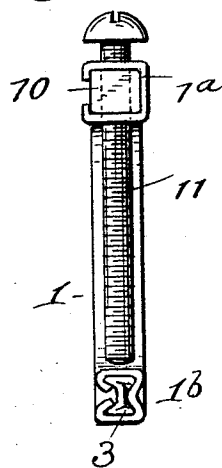


Fig. 7.

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and
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UNITED STATES PATENT OFFICE.

WILLIAM F. GREATHEAD AND MILTON J. TAMBLYN, OF CLEVELAND, OHIO, ASSIGNORS,
BY DIRECT AND MESNE ASSIGNMENTS, OF ONE-HALF TO WILLIAM F. GREATHEAD,
AND ONE-HALF TO JAMES C. DEGARMO, BOTH OF CLEVELAND, OHIO.

C. CLAMP.

Application filed August 25, 1923. Serial No. 659,405.

To all whom it may concern:

Be it known that we, WILLIAM F. GREATHEAD and MILTON J. TAMBLYN, citizens of the United States, and residents, respectively, of Cleveland, in the county of Cuyahoga and State of Ohio, and Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in C Clamps, of which the following is a full, clear, and exact description.

The present invention relates to a clamp of the variety which in trade is known as a C-clamp, the purpose and use of which are perfectly well known.

Reference should be had to the accompanying drawings forming a part of this specification, in which Fig. 1 is a side elevation; Fig. 2 is a side elevation of one part of the body of the clamp; Fig. 3 is an elevation of a complementary portion of the body of the clamp; Fig. 4 is a section upon the line 4—4 of Fig. 1; Fig. 5 is a section on the line 5—5 of Fig. 2; Fig. 6 is a section on the line 6—6 of Fig. 3; and Fig. 7 is an end elevation of Fig. 1.

Referring to the drawing, the body of the clamp is generally represented at 1, and is made up in its preferable form of two sheet metal stampings which are represented at 2 in Fig. 2, and 3 in Fig. 3.

The part 2 as before stated, is preferably formed as a stamping of sheet metal having a general C shape, in one of which there is a depression or groove represented at 4, and when this part is formed, there are two parallel flanges which are indicated at 5 and 6.

The part 3 which is shown in Figs. 3 and 6 is also preferably formed as a stamping of sheet metal, and it is provided with a groove on one side thereof, as indicated at 7, with short extending flanges such as indicated at 8 and 9. This forms a rigid self-sustaining body.

In making up the body portion of the C clamp the part 3 is inserted within the part 2 in such fashion that the groove 7 is occupied by the extension caused by the forming of the groove 4 in the part 2. The manner of their assembly is shown in Fig. 4, and when the parts are assembled as described, the edges of the flanges 5 and 6 are bent over and around the edges of the flanges 8 and 9, thus forming the parts 2 and 3 into

an integral body. The forming of the body with the depressions, or grooves as before stated, and the folding over of the edges of the flanges 5 and 6 produce a rigid body which is entirely capable of sustaining the strains to which it is subjected in its use.

One end of the member 2 is formed with a squared end as indicated at 1^a, and better shown in Fig. 7, and this squared end is adapted to receive a square nut 10 which has an opening that is threaded and adapted to receive a threaded rod 11. The walls of the square portion 1^a are provided with openings which align with the openings through the nut 10 so that when the parts are in their assembled condition the nut is prevented from dropping out and at the same time provides a member which receives the rod so that it may be threaded toward the other end of the C clamp which is represented at 1^b which forms an abutment between which abutment and the end of the screw the material or object to be clamped is received.

If the threads of the nut 10 becomes stripped or worn in usage, it is possible to renew the nut 10 by removing the screw 11 and inserting a new nut.

Having described our invention, we claim:

1. A clamp having a C-shaped body portion which is formed of two C-shaped parts one fitting within the other, the outer part enclosing the inner and holding the same against movement with respect to the outer part, a threaded member associated with one end of the body portion, and a threaded rod extending through the threaded member.

2. A clamp having a C-shaped body portion which is formed of two C-shaped sheet metal stampings which are assembled one within the other, the inner stamping fitting within the outer and the outer stamping having flanges engaging the inner stamping and retain the same, a threaded member associated with one end of the C clamp, and a threaded rod co-operating with said threaded member.

3. A clamp having a C-shaped body portion which is formed of inner and outer C-shaped parts, the outer of the parts being formed of sheet metal and engaging one side of the inner part, said outer part having flanges engaging the inner and outer edges of the inner part and bent over into

engagement with the opposite side thereof thereby to secure the parts together, a threaded member associated with one end of the body portion, and a threaded rod co-operating with said threaded member.

5 4. A clamp having a C-shaped body portion which is formed of inner and outer C-shaped sheet metal parts, the inner part being formed with a central groove in the side thereof and having its edges bent back upon themselves to form laterally projecting flanges, the outer part having a groove formed in the side thereof and having laterally extending edge flanges between which the inner part fits which are bent over into engagement with the inner part to hold the same in place, a threaded member co-operating with one end of the body portion, and a threaded rod co-operating with said threaded member.

20 5. A clamp having a C-shaped body formed of inner and outer C-shaped parts, the inner part being flanged substantially through its length and the outer part embracing said inner part and engaging opposite sides thereof, and a threaded rod extending through one end of said body and adjustable toward and from the opposite end thereof.

30 6. A clamp having a C-shaped body formed of inner and outer C-shaped parts, the inner part having a web portion and lat-

erally projecting flanges along the inner and outer edges thereof and the outer part being formed of sheet metal and having a web portion engaging one side of the web portion of the inner part and flanges overlying the flanges of the inner part, said flanges of the outer part being bent inwardly over the opposite side of the inner part to secure the parts together, and a threaded rod extending through one end of said body and adjustable toward and from the opposite end thereof.

45 7. A clamp having a C-shaped body formed of inner and outer C-shaped sheet metal parts, the inner part being substantially I-shaped in cross section and having a web portion substantially in the plane of the body and flanges projecting outwardly along the inner and outer edges thereof, the outer part having a web portion engaging one side of the web portion of the inner part and edge flanges overlying the inner and outer edges of the inner part and bent inwardly over the opposite side of the inner part to secure the same in place, and a threaded and clamping means cooperating with the ends of said body.

In testimony whereof, we hereunto affix our signatures.

WILLIAM F. GREATHEAD.
MILTON J. TAMBLYN.