

Sept. 11, 1923.

1,467,943

L. LAMPERT

COLUMN CLAMP

Filed March 4, 1922

Fig. 1.

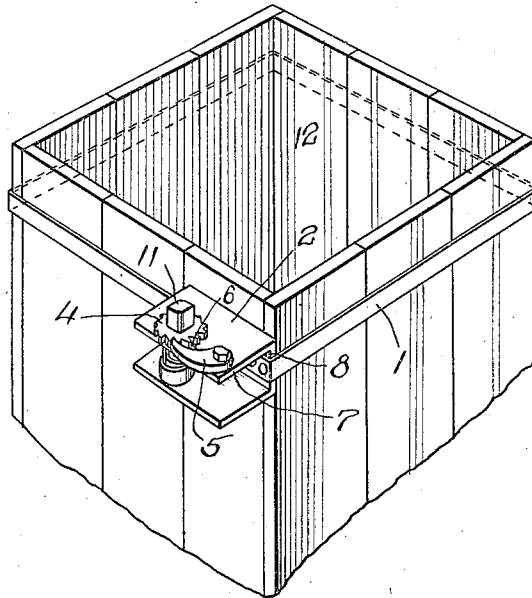


Fig. 2.

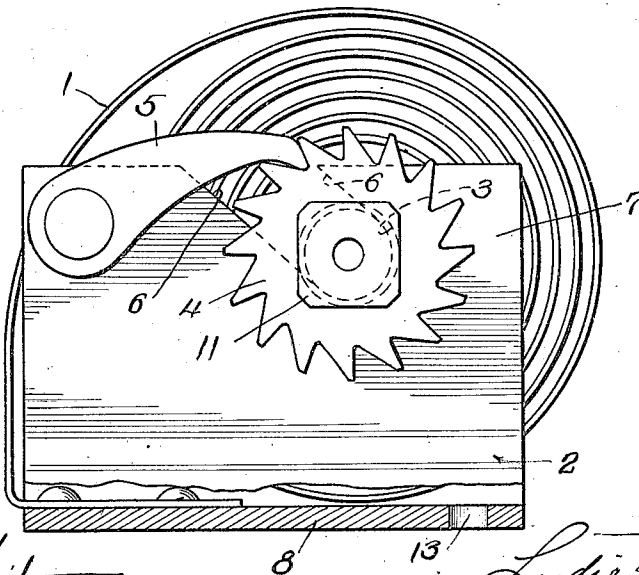
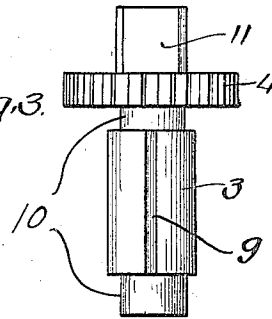


Fig. 3.



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UNITED STATES PATENT OFFICE.

LYDIA LAMPERT, OF CHICAGO, ILLINOIS.

COLUMN CLAMP.

Application filed March 4, 1922. Serial No. 540,989.

To all whom it may concern:

Be it known that I, LYDIA LAMPERT, a citizen of the United States of America, and a resident of Chicago, county of Cook, and State of Illinois, have invented a new and useful Improvement in Column Clamps, of which the following is a specification.

The main objects of this invention are to provide an improved clamp for concrete molds particularly of the type used for forming columns; to provide an improved construction and arrangement of a flexible binding member adapted to embrace the mold; to provide improved tightening means for drawing up the binding member; and to provide an improved connection of said binding member and tightening means with each other whereby they are compactly assembled for storage or shipment and are quickly and easily arranged on the mold preparatory to being adjusted to clamp the mold parts in place.

An illustrative embodiment of this invention is shown in the accompanying drawing, in which—

Figure 1 is a perspective view of a section of a mold for forming a concrete column, the mold parts being clamped in place by a clamping device constructed in accordance with this invention.

Figure 2 is a side elevation of a clamping device constructed in accordance with this invention showing the compact arrangement of the same for storage or shipment purposes.

Figure 3 is a detail view of the arbor by means of which the clamping member is drawn up.

A concrete mold clamp constructed in accordance with this invention involves the use of a flexible binding member adapted to embrace the mold, a holder secured to one end of the binding member and rotatably supporting an arbor connected to the other end of the binding member and which is adapted to be rotated for drawing up the binding member, and a pawl and ratchet arranged to lock said arbor in position to hold said binding member as adjusted upon the mold.

In the specific embodiment herein shown, the flexible binding member 1 has one end thereof secured to a holder 2 and the other end to an arbor 3 which is adapted to be rotatably supported upon the holder 2 so that after the band is passed around the mold

the arbor may be rotated for the purpose of drawing the band up firmly and retaining it in its adjusted position by means of a ratchet 4 and a pawl 5.

The flexible binding member 1 is preferably in the form of a strip of sheet metal, the gauge of which depends upon the various sizes of molds with which the clamp is likely to be used. The strip being preferably wrought metal it is more or less readily handled in either uncoiling it to pass it around the mold as shown in Figure 1 or in coiling it up as shown in Figure 2 for storage or shipment purposes.

The holder 2 is a channel-shaped member having recesses 6 extending inwardly from the edges of the flanges 7 toward the base 8. These recesses are inclined inwardly away from the end of the holder to which the band 1 is connected. This holder is preferably a sheet metal stamping.

The arbor 3 comprises a piece of shafting or a malleable casting of a length considerably greater than the distance between the flanges 7 so that the ends thereof extend beyond the flanges when the arbor is seated in the recesses 6. A slot 9 is formed in a medial part of the arbor 3 and has the other end of the band 1 extended therethrough and bent around the arbor so as to more or less permanently secure the arbor to the band. Parts 10 of the arbor are preferably cut away or otherwise shaped so as to form bearings adapted to be seated in the recesses 6. One of the ends of the arbor 3 is squared as shown at 11 to have a wrench applied thereto by which the arbor may be rotated.

The ratchet 4 may be separately constructed or formed integrally with the arbor 3. In the former case the ratchet would, of course, have to be keyed or otherwise rigidly secured to the arbor. The preferable form is casting the ratchet 4 with the arbor. The pawl 5 is pivoted upon one of the flanges 7 in any suitable manner so that the end thereof properly engages the teeth on the ratchet 4 so as to enable the operator to lock the arbor in place after it has been turned to properly adjust and tighten the binding member 1.

The tightening device herein shown and described is used in substantially the following manner:

For shipment and storage purposes the band 1 is wound up on the arbor 3 and the

arbor seated in the recesses 6 of the holder 2 as illustrated in Figure 2. The parts are thus all permanently secured together and are compactly arranged.

5 When the device is to be used the arbor 3 with the coiled band thereon is removed from the holder 2 and the holder set with the base 8 against the form 12 near one corner thereof and temporarily secured in place by
10 means of a nail driven through a hole 12 in the base 8 of the holder. The band is then uncoiled from the arbor as the operator passes it around the form back to the holder 2. The arbor 3 is replaced in the aperture
15 6 and a wrench or other tool applied to the squared end 11 of the arbor and rotated so as to draw up the band 1. Pawl 5 is thrown into position against the ratchet 4 so as to lock the arbor in position to secure the band
20 as adjusted around the form.

Although but one specific embodiment of this invention has been herein shown and described, it will be understood that numerous details of the construction shown may be
25 altered or omitted without departing from the spirit of this invention as defined by the following claims.

I claim:

30 1. A clamp for concrete molds comprising a holder providing an arbor bearing and having radially disposed open recesses leading to said bearing, a single arbor journaled thereon, a flexible binding member having one end permanently attached to said holder
35 and the other end permanently attached to said arbor, said arbor being removable from

said holder in a radial direction through said recesses with the band attached thereto to permit said band to be passed around the mold after which it is adapted to be drawn
40 up by the rotation of said arbor on said holder and means for locking said arbor to hold said binding member in its drawn up position.

2. A clamp for concrete molds comprising
45 a channel-shaped holder having a flat bottom, the flanges of said holder having recesses formed therein and inclined inwardly from one end of said holder, a flexible band having one end permanently connected to
50 said one end of said holder, a shaft longer than the distance between said flanges having a slot formed in the medial part thereof and adapted to receive the other end of said
55 band to permit said band to be permanently attached to said shaft, said shaft having parts thereof shaped to fit into said recesses so as to rotatably support said shaft on said
60 holder to permit the drawing up of said band, said shaft with the band attached thereto being radially removable from said
65 recesses so as to permit said band to be passed around a mold, a ratchet secured to said shaft outwardly of one of said flanges, a pawl pivoted on one of said flanges and adapted to coact with said ratchet for securing said shaft to hold said band in its drawn up position.

Signed at Chicago this 2nd day of March, 1922.

LYDIA LAMPERT.