

(No Model.)

G. M. DOUGALL.
CLAMP.

No. 587,034.

Patented July 27, 1897.

Fig. 1.

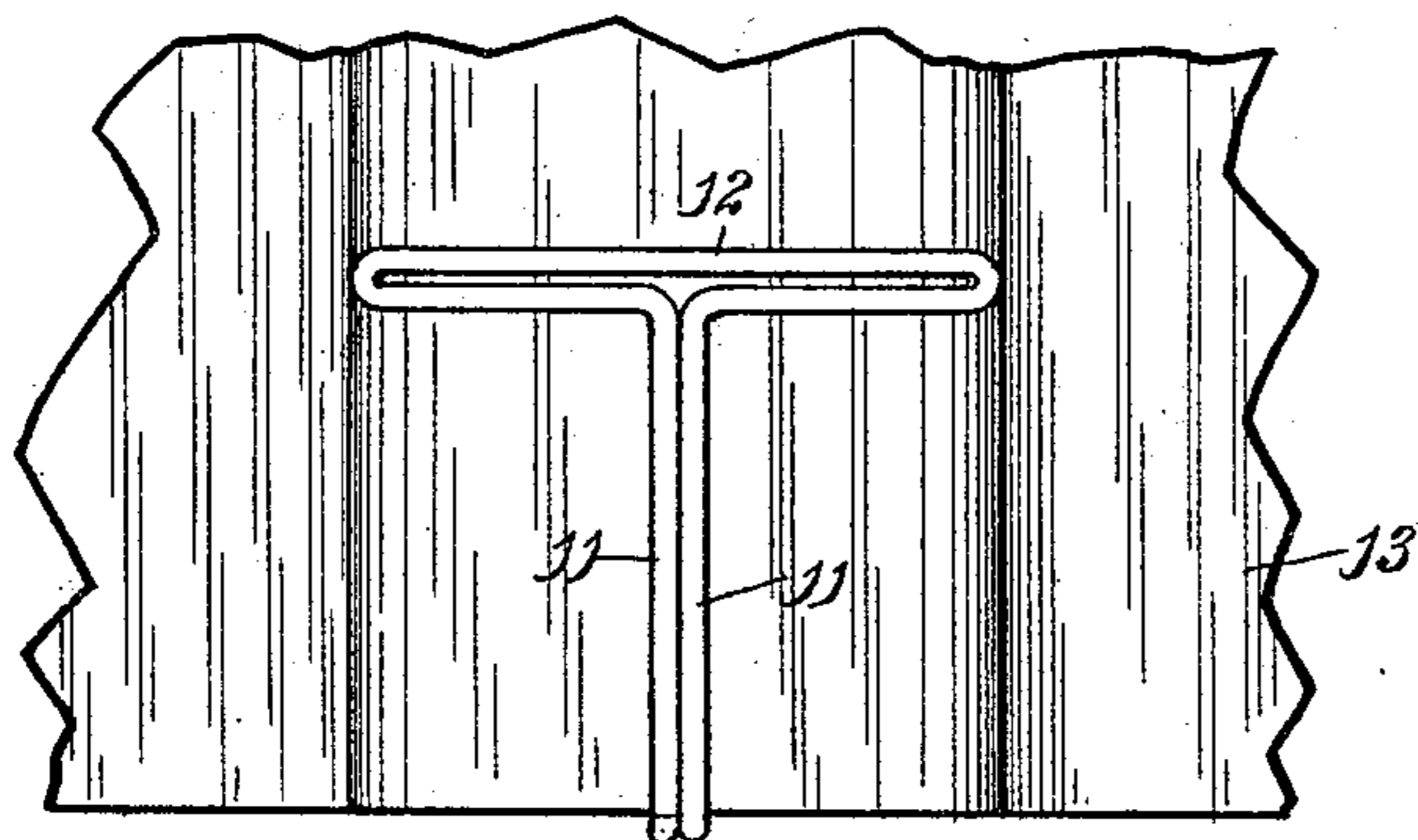


Fig. 2.

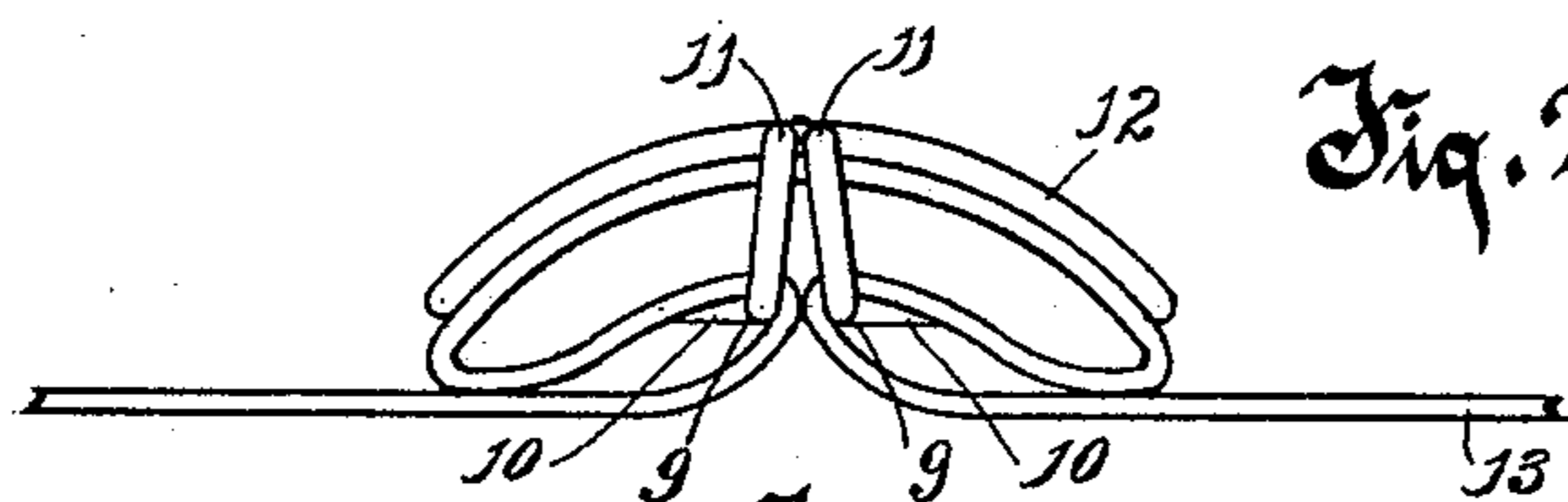


Fig. 4.

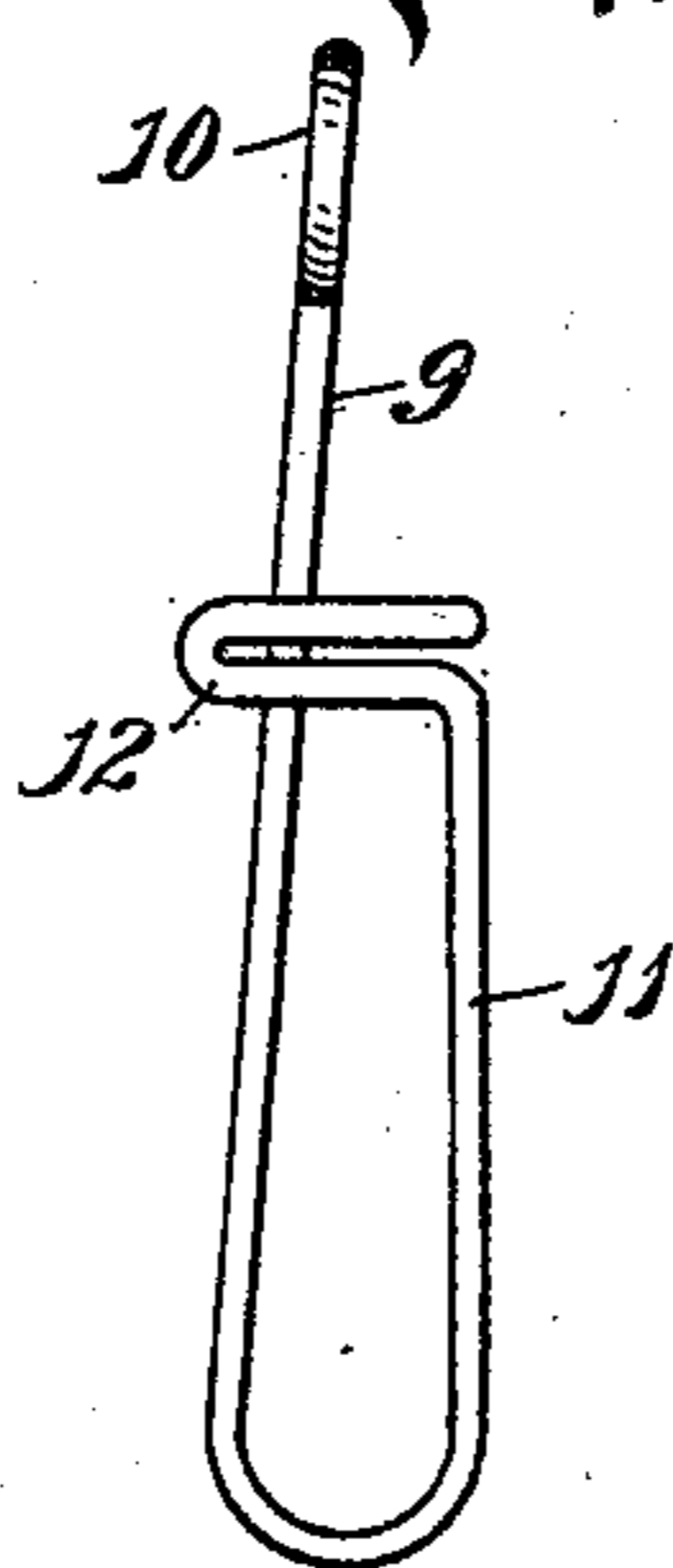


Fig. 3.

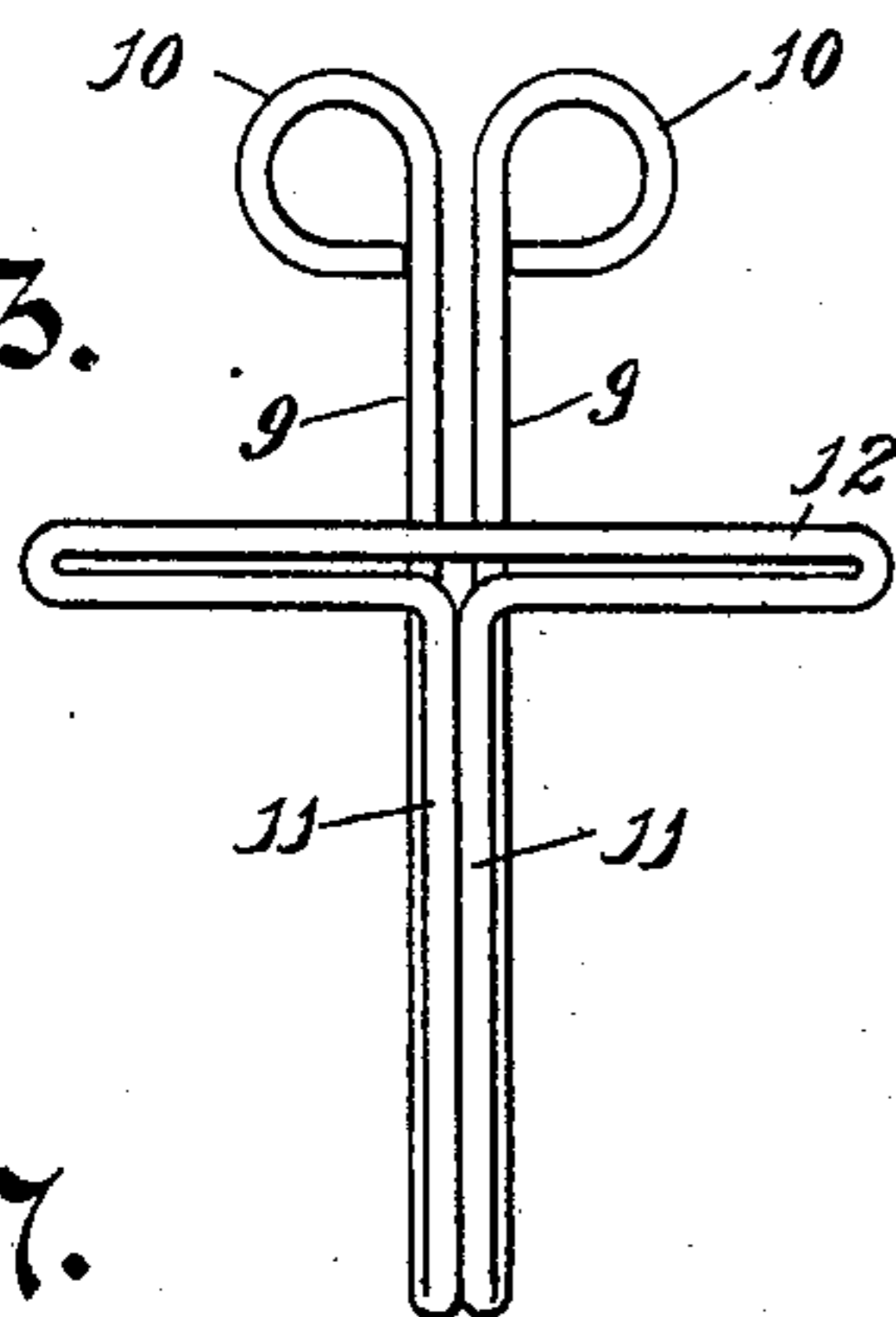


Fig. 5.

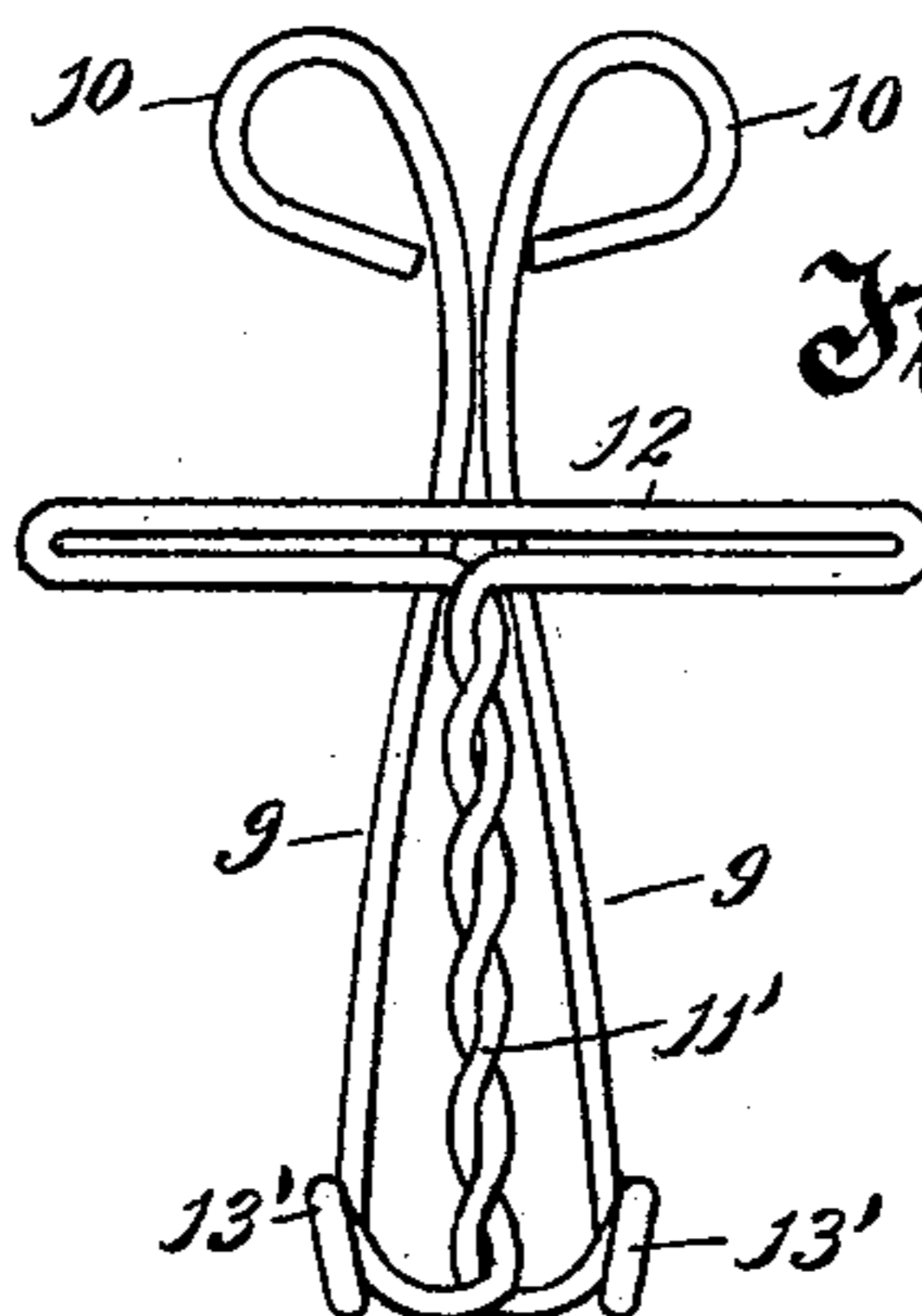


Fig. 7.

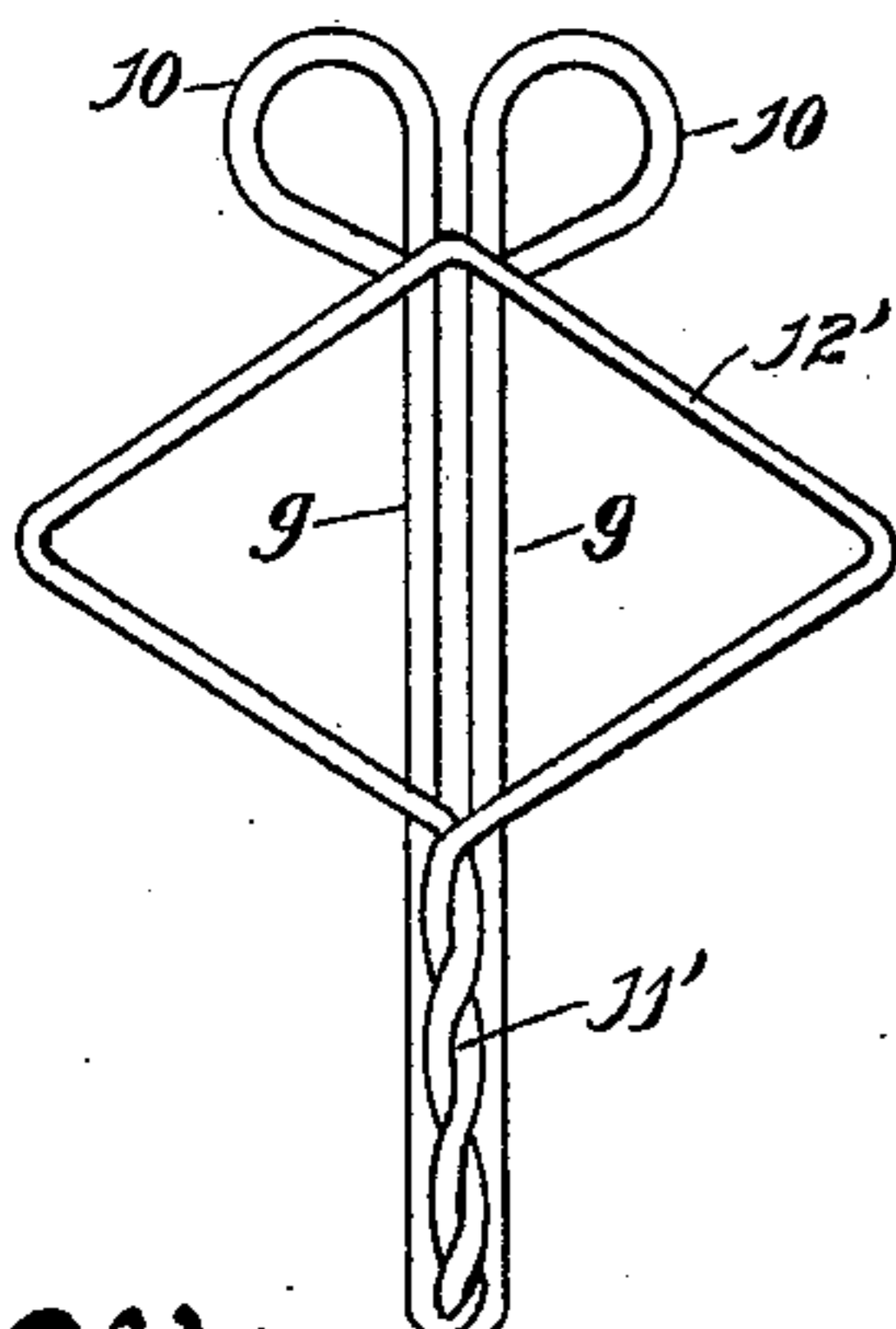


Fig. 8.

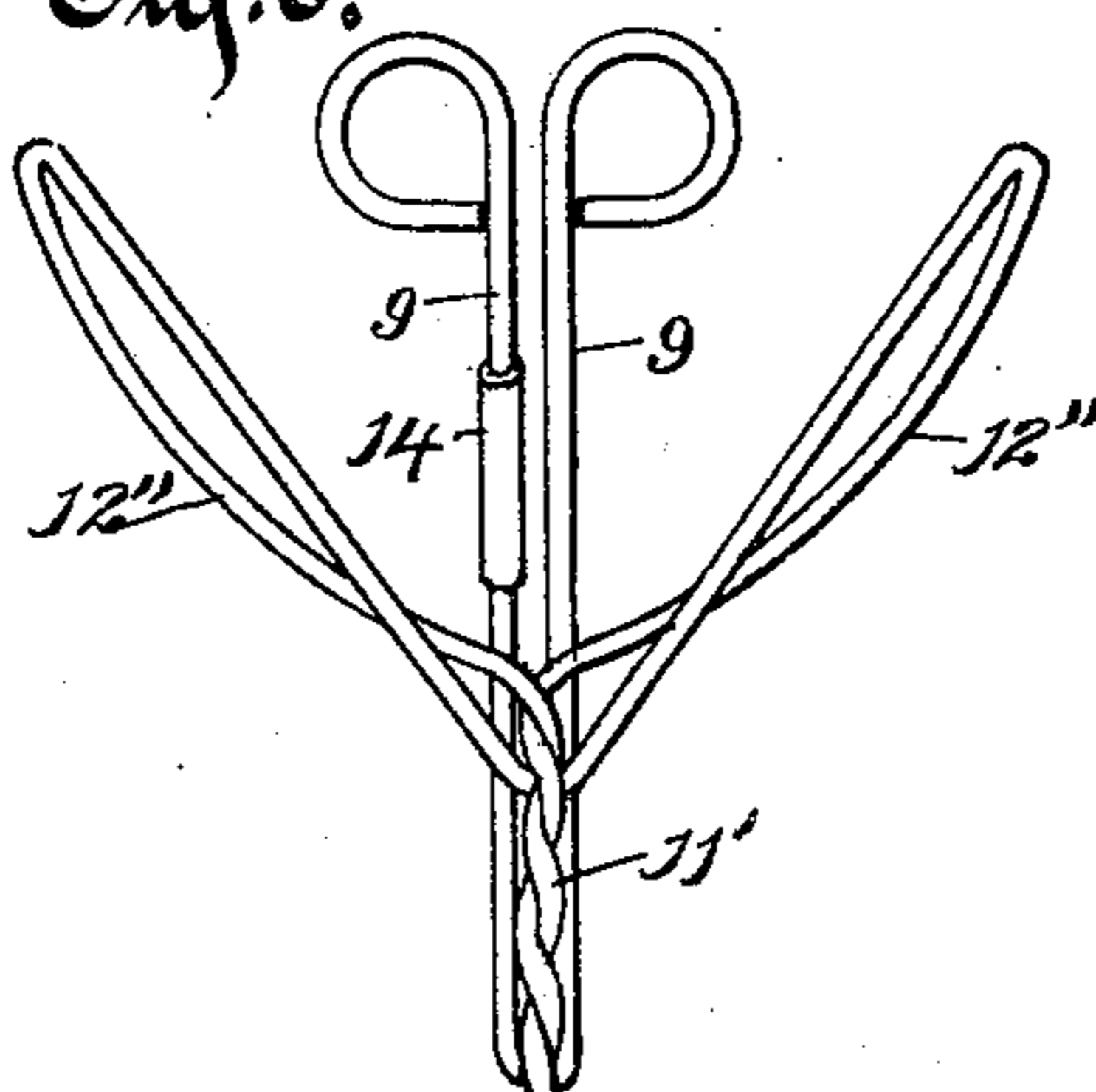
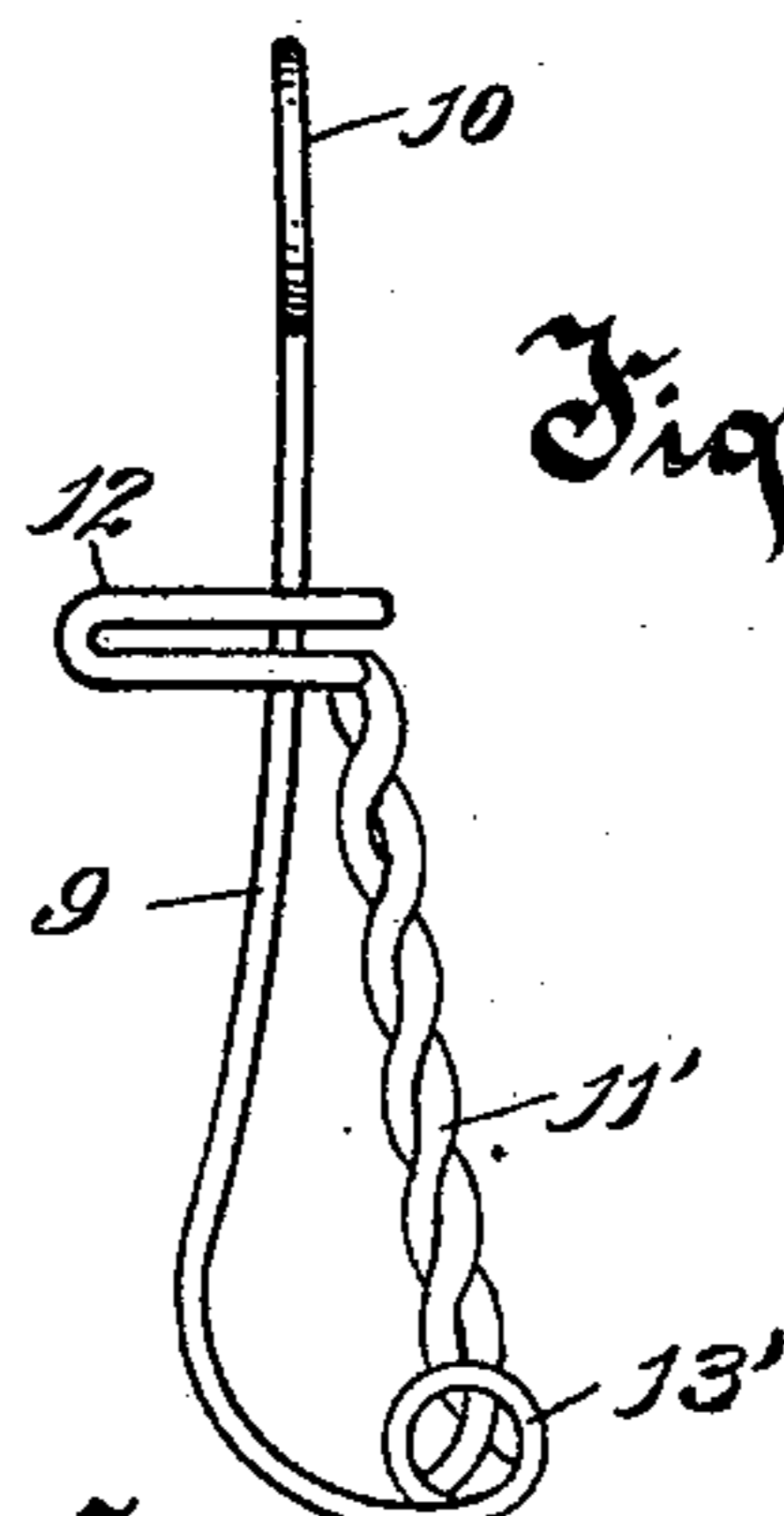


Fig. 6.



Witnesses.

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GEORGE MATILE DOUGALL, OF PRESCOTT, ARIZONA TERRITORY.

CLAMP.

SPECIFICATION forming part of Letters Patent No. 587,034, dated July 27, 1897.

Application filed January 18, 1896. Serial No. 575,966. (No model.)

To all whom it may concern:

Be it known that I, GEORGE MATILE DOUGALL, of Prescott, in the county of Yavapai and Territory of Arizona, have invented a new and useful Improvement in Clamps, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention has relation to improvements in clamps.

The device is particularly adapted, although not necessarily, as a trousers-clamp for bicycle-riders.

The invention consists of the devices and parts or their equivalents as hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a view of one form of my invention as applied to a fold in a trousers-leg. Fig. 2 is an end elevation of Fig. 1. Fig. 3 is a detail view in elevation of the form of clamp shown in Figs. 1 and 2. Fig. 4 is an edge view of Fig. 3. Fig. 5 is an elevation of a modified form. Fig. 6 is an edge view of Fig. 5. Fig. 7 is an elevation of another modified form, and Fig. 8 is an elevation of still another modification.

In Figs. 1, 2, 3, and 4 of the drawings is illustrated a form of clamp constructed from a single piece of wire.

The device is constructed by bending the wire to form the transverse loop or member 12. The two strands 11 11 of the wire are then continued downwardly adjacent to each other to form together a front member or limb. These strands 11 are next bent backward and upward to form two rear members or limbs 9 9, parallel to the front member but at a little distance from one another and from the front member and being longer than said front member. There is a free open space between the upper extremities of the members or limbs 9 9, and said extremities are advisably flared and curved around into loop form, as indicated at 10 10.

It will be observed from the above description that the front of my improved clamp is of T shape or substantial T shape, the loop 12 constituting the head of the T and the part 11 the stem thereof. It will also be observed from Fig. 2 that the transverse loop or member 12 is bent in a curve, so that its

rear is in a plane back of the plane of the depending stem of the loop, so as to conform to the roundness of the ankle and thereby fit closer to the rider's leg.

The trousers-leg is indicated by the numeral 13, Figs. 1 and 2, showing the adaptation of my device thereto. In order to adjust the device to the trousers-leg, the cloth of the trousers is brought together or looped either in front, at the side, or at the back. The flaring ends of the rear members or limbs 9 are then brought up so as to permit said members or limbs to engage the loop of the cloth and clamp it together. The loose cloth in front of the members 9 is then pressed inwardly to form the cloth into an approximate T shape, and the loose cloth thus pressed inwardly—or, in other words, the head of the T of the cloth—is then in position to permit the clamp to be forced upwardly, so that the front T-shaped member of the clamp formed by the limbs 11 and the lateral loop 12 will press against the outside of the cloth. By this arrangement the head of the T-shaped fold will be clamped in the space confined between the front T-shaped member of the clamp and the rear members or limbs 9 thereof, while the stem of the T-shaped fold of the cloth will be clamped between said rear members or limbs. The lateral loop, it will be observed, extends across the width of the head of the fold of the cloth and thereby holds the edges of the fold down.

It is of course apparent that instead of turning the plait out it could just as readily be turned in. In this case the fold will be clamped between the members 9 9 and the cloth then spread in front of the members 9 and passed between said members 9 and the front T-shaped member 11 12.

It will also be understood that the clamp is equally well adapted to the pants'-leg when folded over in the ordinary manner. In this case the fold will simply be clamped between the rear limbs or members 9 on the one hand and the front T-shaped portion 11 12 on the other. The clamp should be placed well forward on the fold, or just so that the end of the loop 12, that is toward the back of the ankle, comes about the end of the fold. In this last-referred-to fold, as well as in the fold illustrated in Figs. 1 and 2, the loop 12 may,

if preferred, be hidden beneath the fold instead of the loop being arranged on the outside of it.

Figs. 5 and 6 illustrate a modification in which the members 9 9 gradually converge upwardly to a point where they almost contact with each other, such point being just below the flaring mouth; also, instead of the limbs 11 11, which form the stem of the T, running parallel and adjacent to each other, as in the preceding figures of the drawings, they are twisted together, as indicated at 11'. Either form of course provides for the limbs 11 11 acting as one, it being the purpose that they should form the equivalent of a single depending stem. I furthermore in this modification show the wire twisted to form the simple coils 13' 13'. These coils will have the effect of keeping the upper portions of the members 9 9 close together at the point just below the flaring mouth, as above indicated, and serve to return them to position after having been forced apart.

In Fig. 7 the limbs 11 11 are also twisted together, as at 11', but instead of the lateral member corresponding to 12 being formed into a loop with straight sides, as in the other figures of the drawings, said lateral member is bent into approximate diamond shape, as indicated at 12'.

In Fig. 8 the wire is bent laterally at upward inclines from the twist 11' to form the lateral members 12'' 12'' of loop form, the wire in each loop being twisted once. If desired, the device may, in order to conceal the wire, prevent rust, and increase the hold of said device upon the cloth, be covered with a tubing or cover of silk, cotton, or like material. A fragment of such tubing is shown in Fig. 8 and is indicated by the numeral 14.

It will be seen that the device as shown and described is so constructed as to form practically a rear member, composed of two limbs, and a front member, said front member provided at its upper end with a laterally-extending portion whereby the front member approximates in form the shape of the letter T. The limbs of the rear member act as one in so far as their pressure toward the forward T-shaped member is concerned, and said limbs of the rear member also act against each other, while the front member exerts a pressure perpendicular to the direction of pressure between the limbs of the rear member.

While the clamp is intended primarily and especially for bicycle-riders, yet I do not wish to be understood as confining myself to such use, but intend to cover it for all purposes for which it may be found adaptable. For instance, it may be used advantageously for the purpose of keeping the extremity of the shirt-cuff within the coat-sleeve, so as to protect the cuff from becoming soiled while a person is at work, without the necessity of removing the cuff. All that is necessary for such adaptation is to shove the end of the

cuff back as far as the extremity of the coat-sleeve and push the clamp up the sleeve and cuff as far as it will go. The pressure of the spring will be found sufficient to keep the cuff from slipping out.

It will be seen from the description and illustration of my invention that it is exceedingly simple in construction, easy of application, and when applied acts as a safe and secure clamp.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. As an improved article of manufacture, a clamp consisting of a front T-shaped, or substantially T-shaped, member constructed of wire, said wire being bent backward from the stem of the front T-shaped member, and then upward to form two rear members or limbs running parallel to the stem of the front member, but at a little distance from one another, leaving an opening between their ends, and also at a little distance from the front member, and being longer than said front member, and adapted to exert a pressure, when in use, toward one another, and at the same time to exert together a pressure toward the T-shaped front member, and at right angles to the pressure exerted between themselves.

2. As an improved article of manufacture, a clamp constructed of wire and consisting of a front T-shaped, or substantially T-shaped, member, the arms constituting the head of the T being curved rearwardly, and the stem of the T at its lower end being bent backward from the front T-shaped member, and upward to form two rear members or limbs running parallel to the stem of the front member, but at a little distance from one another, leaving an opening between their ends, and also at a little distance from the front member, and being longer than the front member, and adapted to exert a pressure, when in use, toward one another, and at the same time to exert together a pressure toward the T-shaped front member, and at right angles to the pressure exerted between themselves.

3. As an improved article of manufacture, a clamp consisting of a front T-shaped, or substantially T-shaped member, constructed from a loop of wire, the strands forming the stem of the T being twisted together, and then bent backward and upward to form two rear members or limbs running parallel to the stem of the front member, but at a little distance from one another, leaving an opening between their ends, and also at a little distance from the front member, and being longer than said front member, and adapted to exert a pressure, when in use, toward one another, and at the same time to exert together a pressure toward the T-shaped front member and at right angles to the pressure exerted between themselves.

4. As an improved article of manufacture, a clamp constructed of wire, and consisting

of a front T-shaped, or substantially T-shaped, member, the stem of the T being coiled at its lower end, and then bent backward and upward to form two rear members
5 or limbs running parallel to the stem of the front member, but at a little distance from one another, leaving an opening between their ends, and also at a little distance from the front member, and being longer than said
10 front member and adapted to exert a pressure, when in use, toward one another, and at the

same time to exert together a pressure toward the T-shaped front member, and at right angles to the pressure exerted between themselves.

In testimony whereof I affix my signature
in presence of two witnesses.

GEORGE MATILE DOUGALL.

Witnesses:

H. D. ROSS,
JAKE MARKS.