

(No Model.)

2 Sheets—Sheet 1.

J. F. SCHOEPPPL & W. HEEREN.
HOOK AND EYE.

No. 581,921.

Patented May 4, 1897.

Fig. 2.

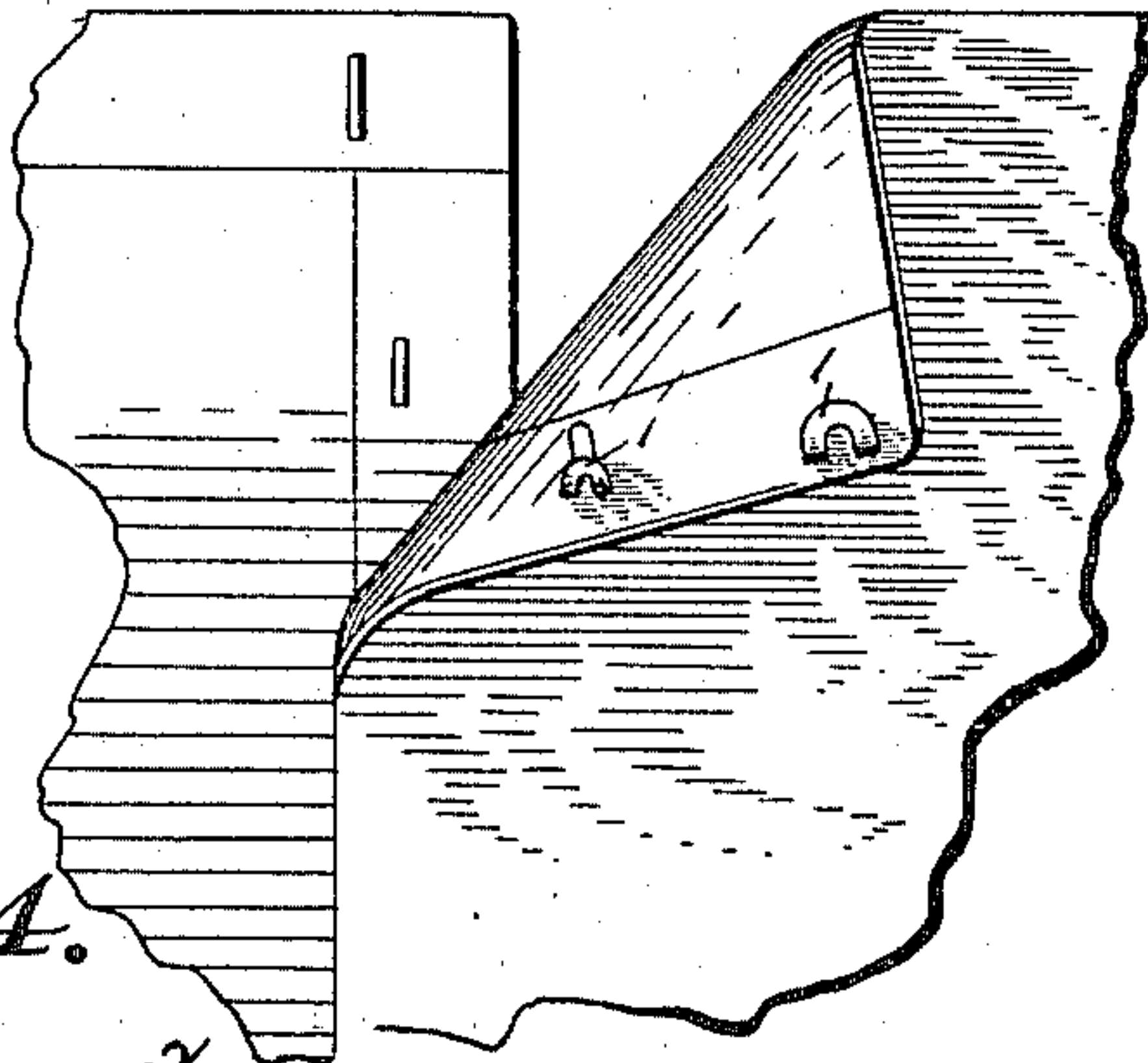
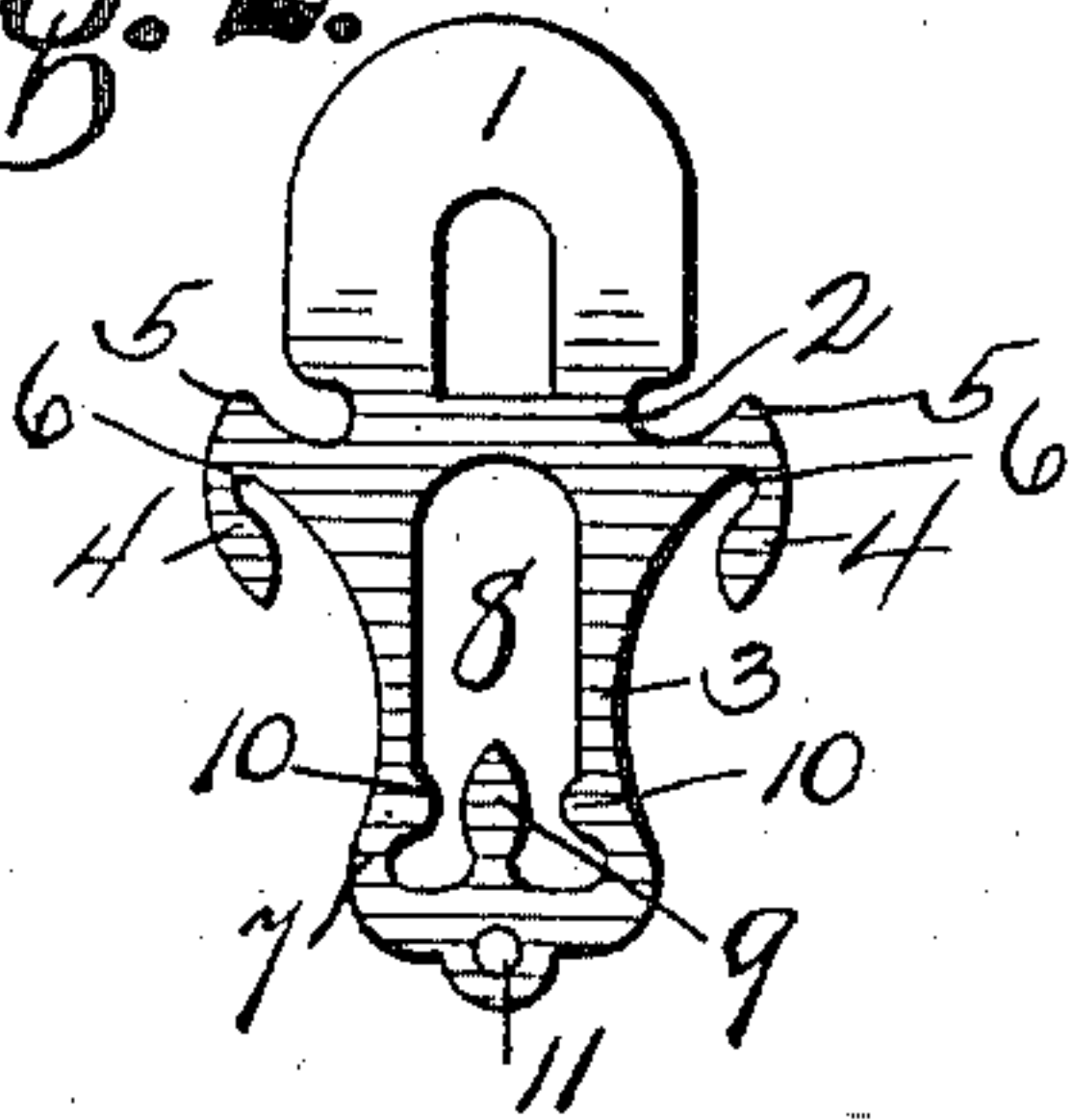


Fig. 1.

Fig. 3.

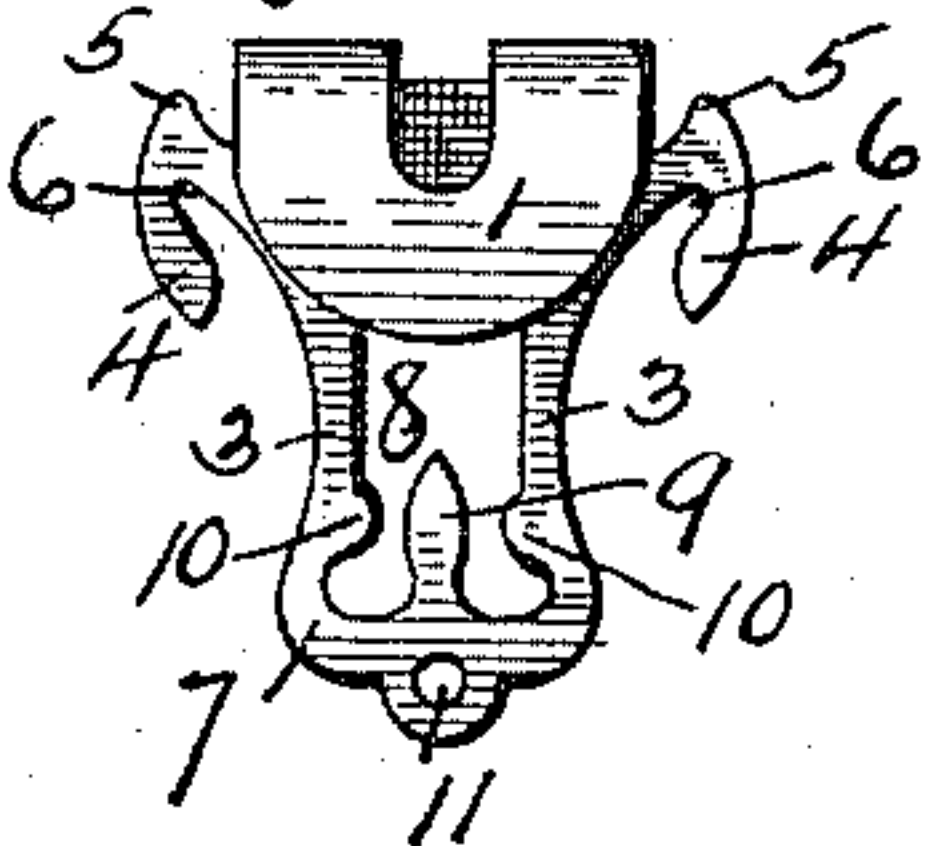


Fig. 4.

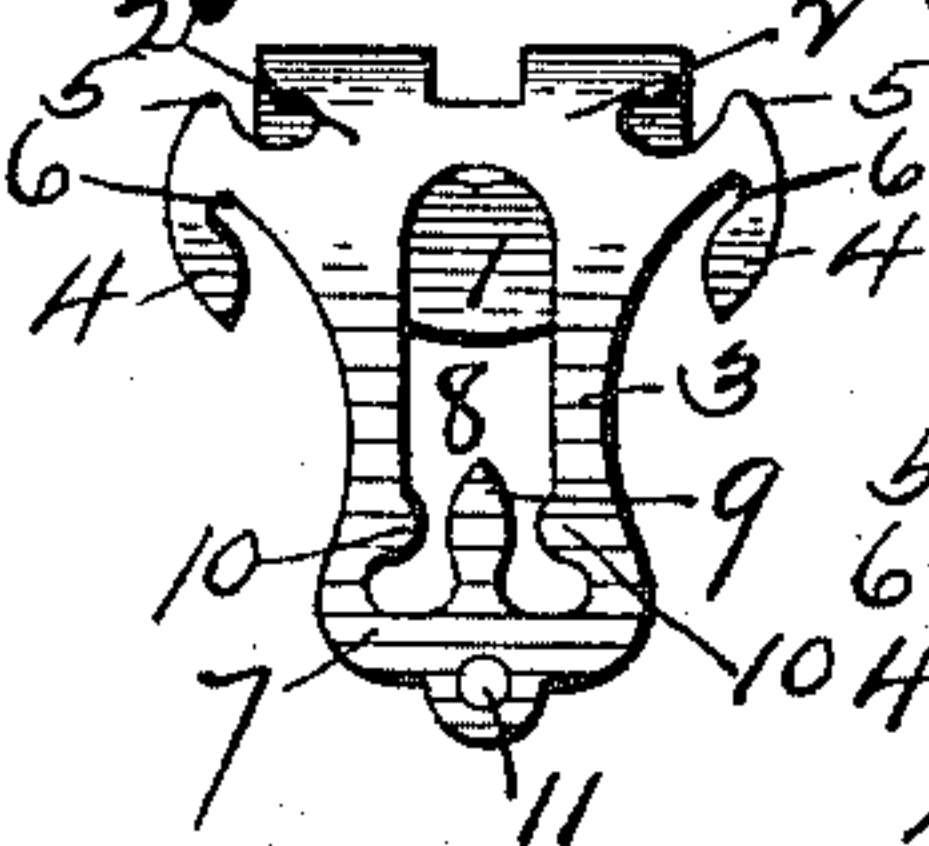


Fig. 5.

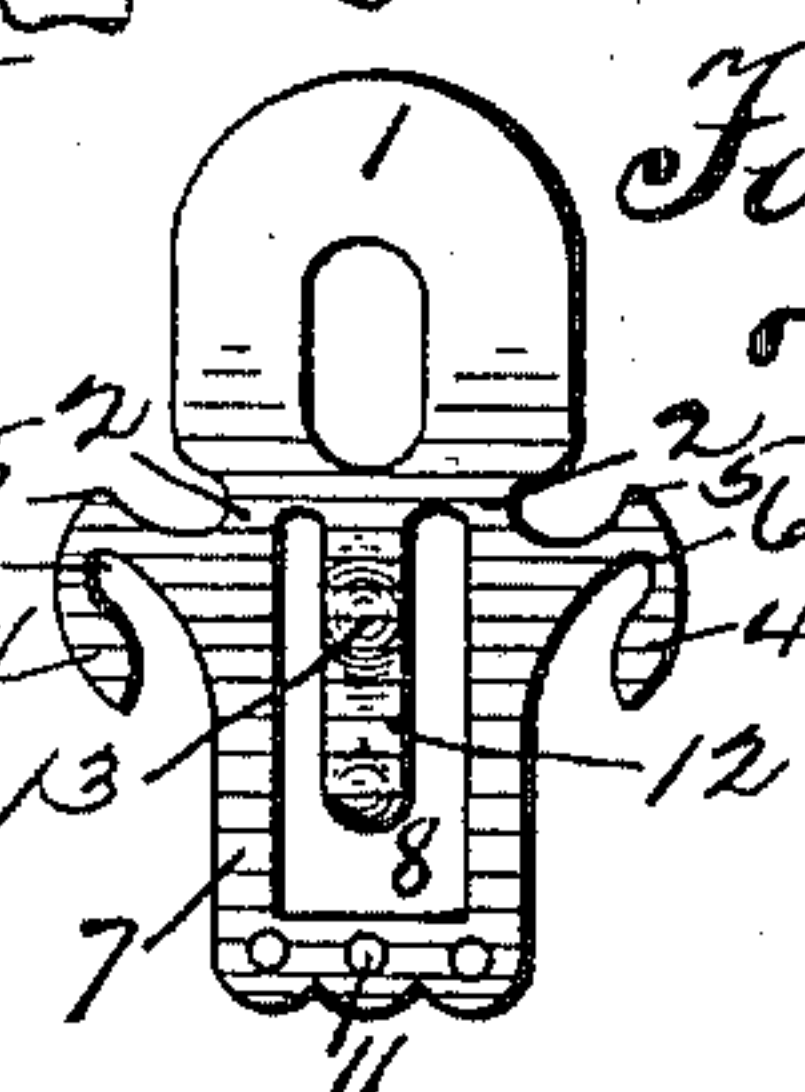


Fig. 6.

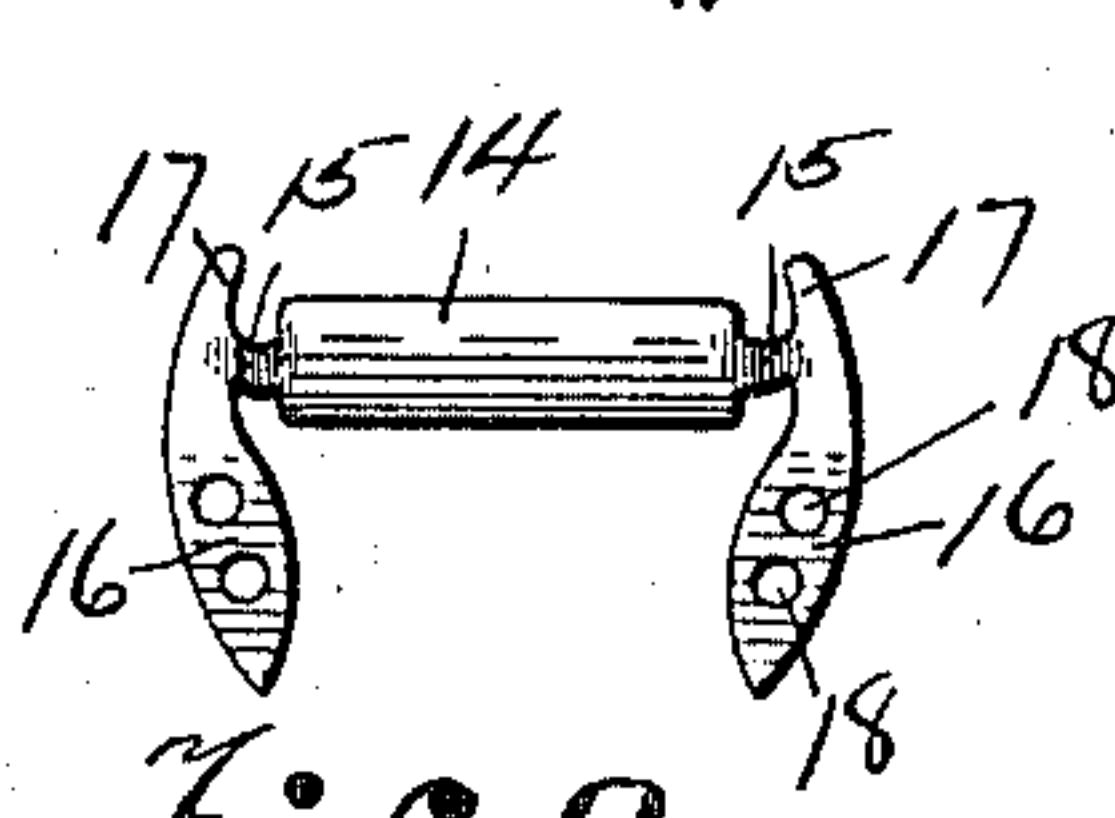
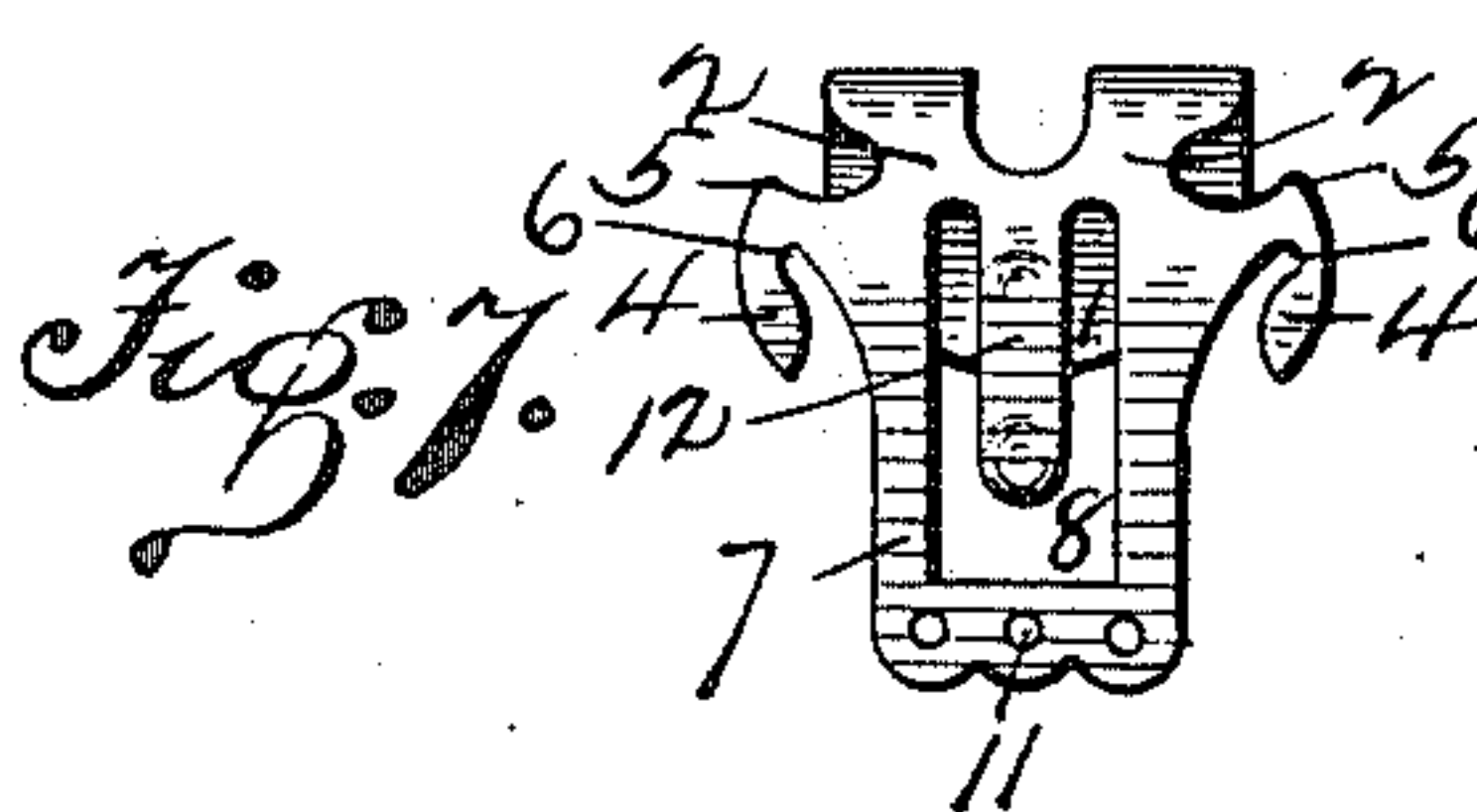
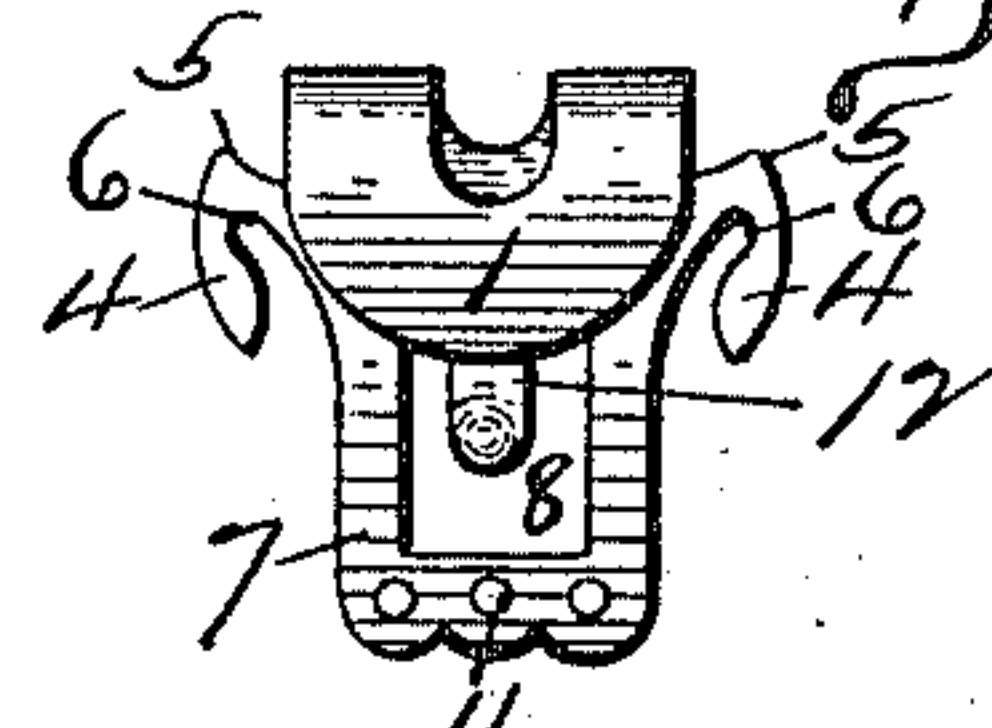


Fig. 8.

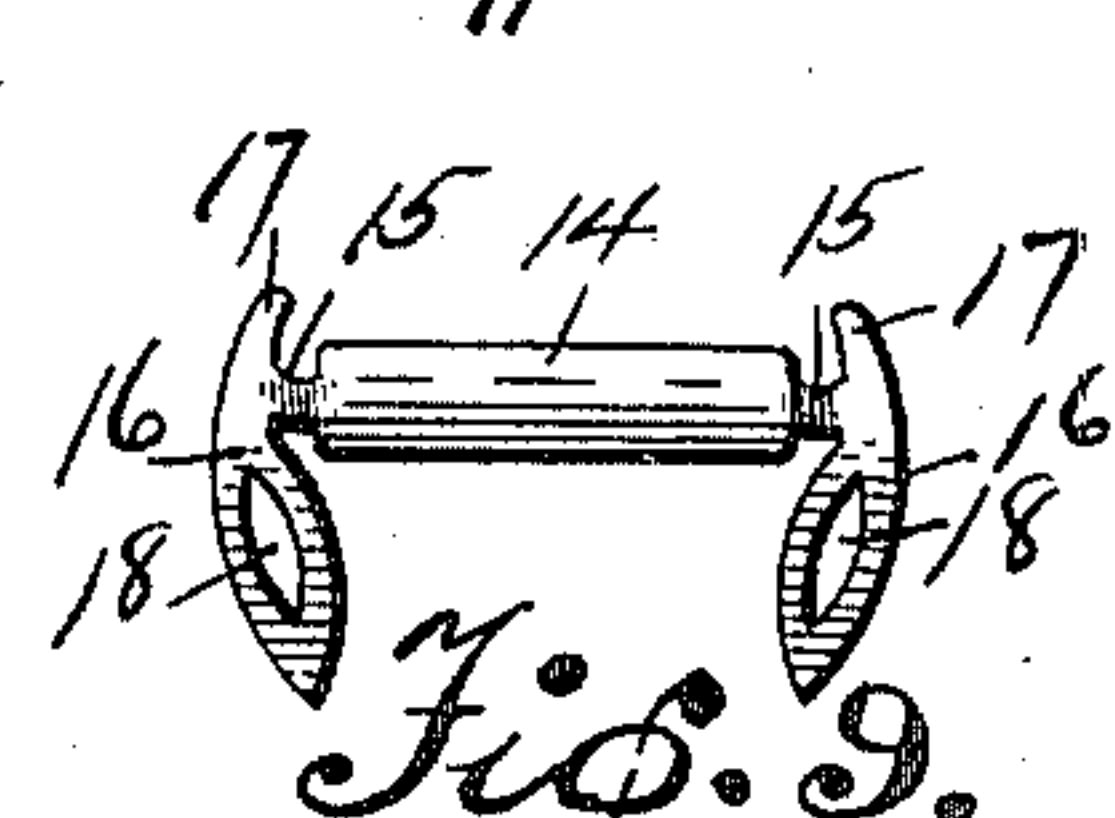


Fig. 9.

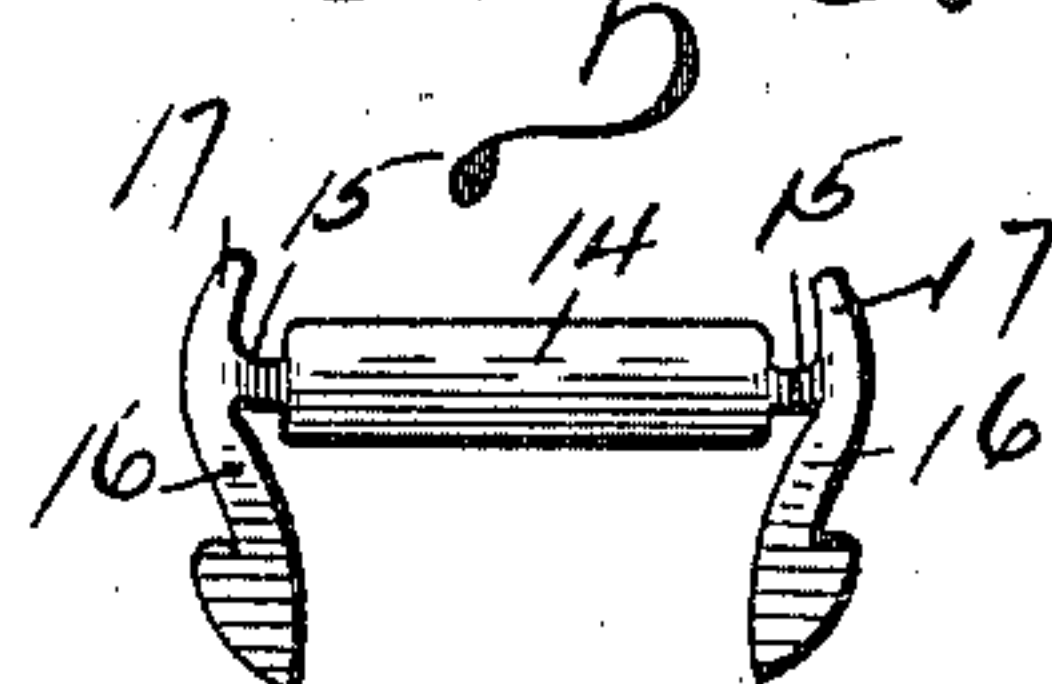


Fig. 10.



Fig. 11.

Witnesses:
A. R. Appleman
A. Wilson

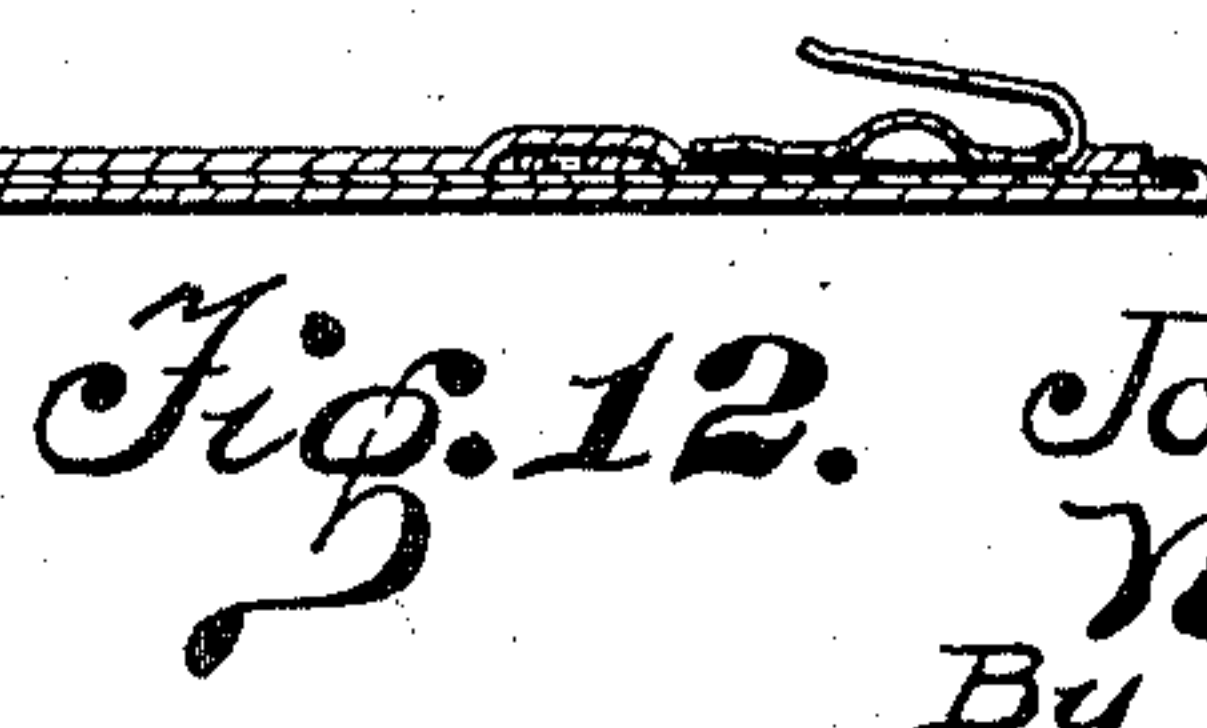


Fig. 12.

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Fig. 13.

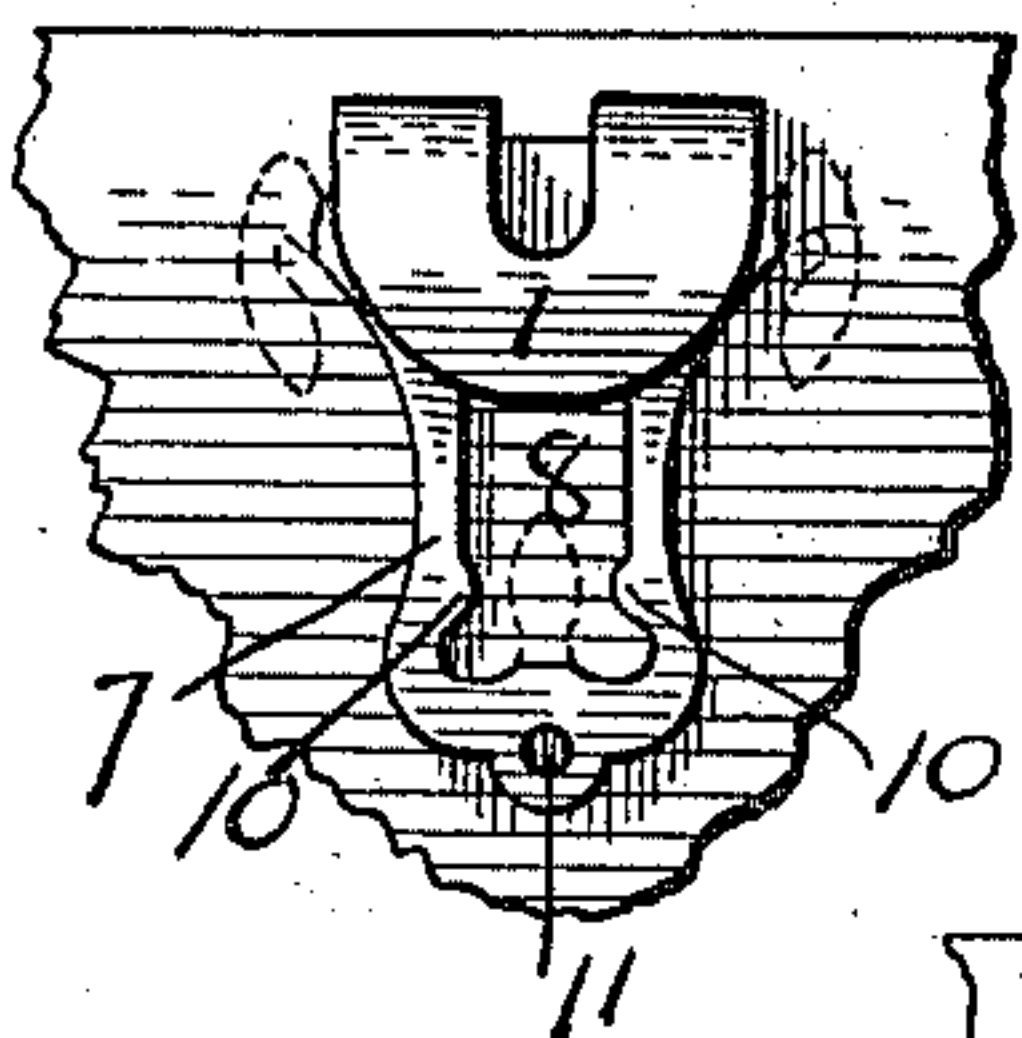


Fig. 14.

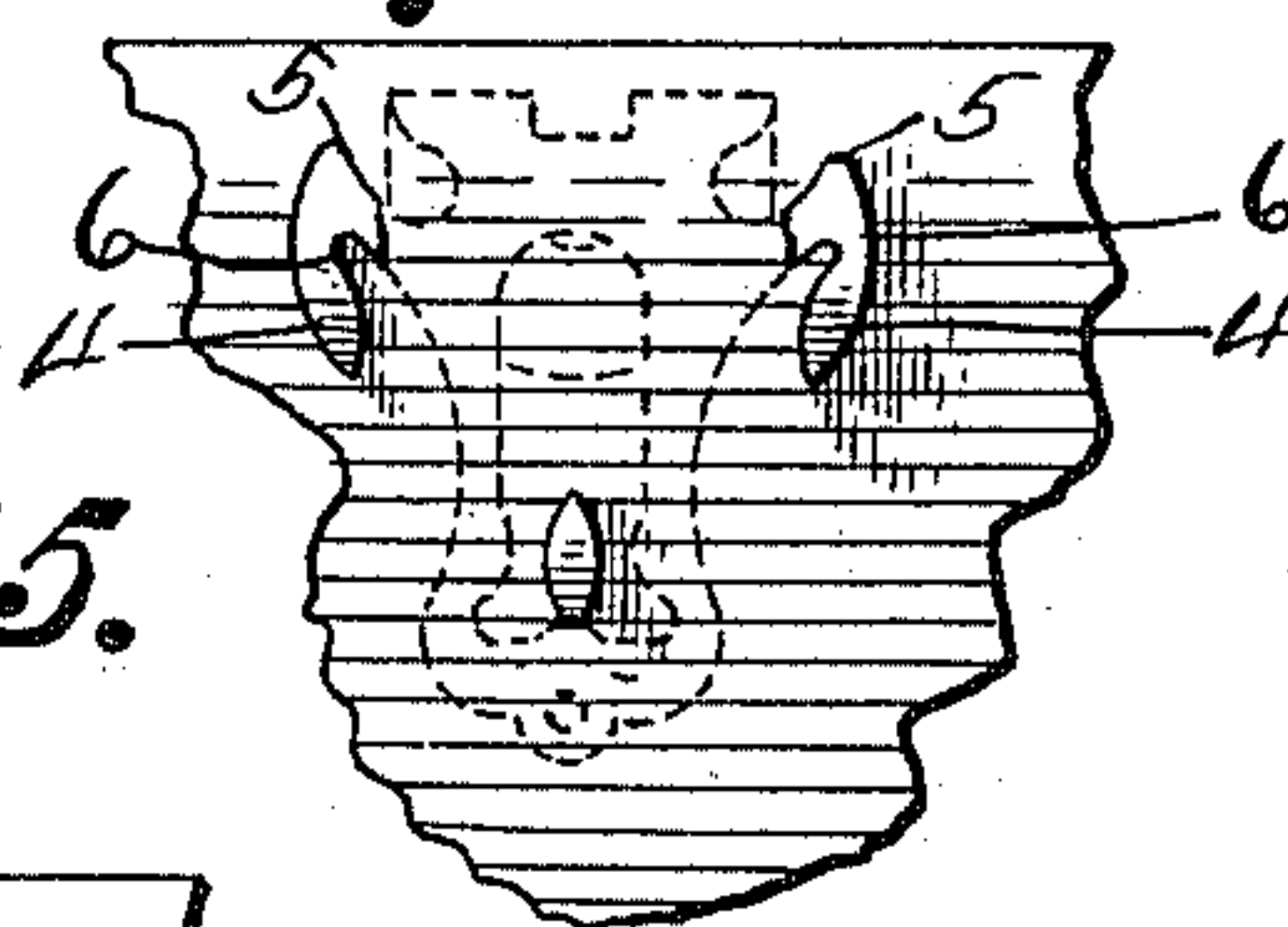


Fig. 15.

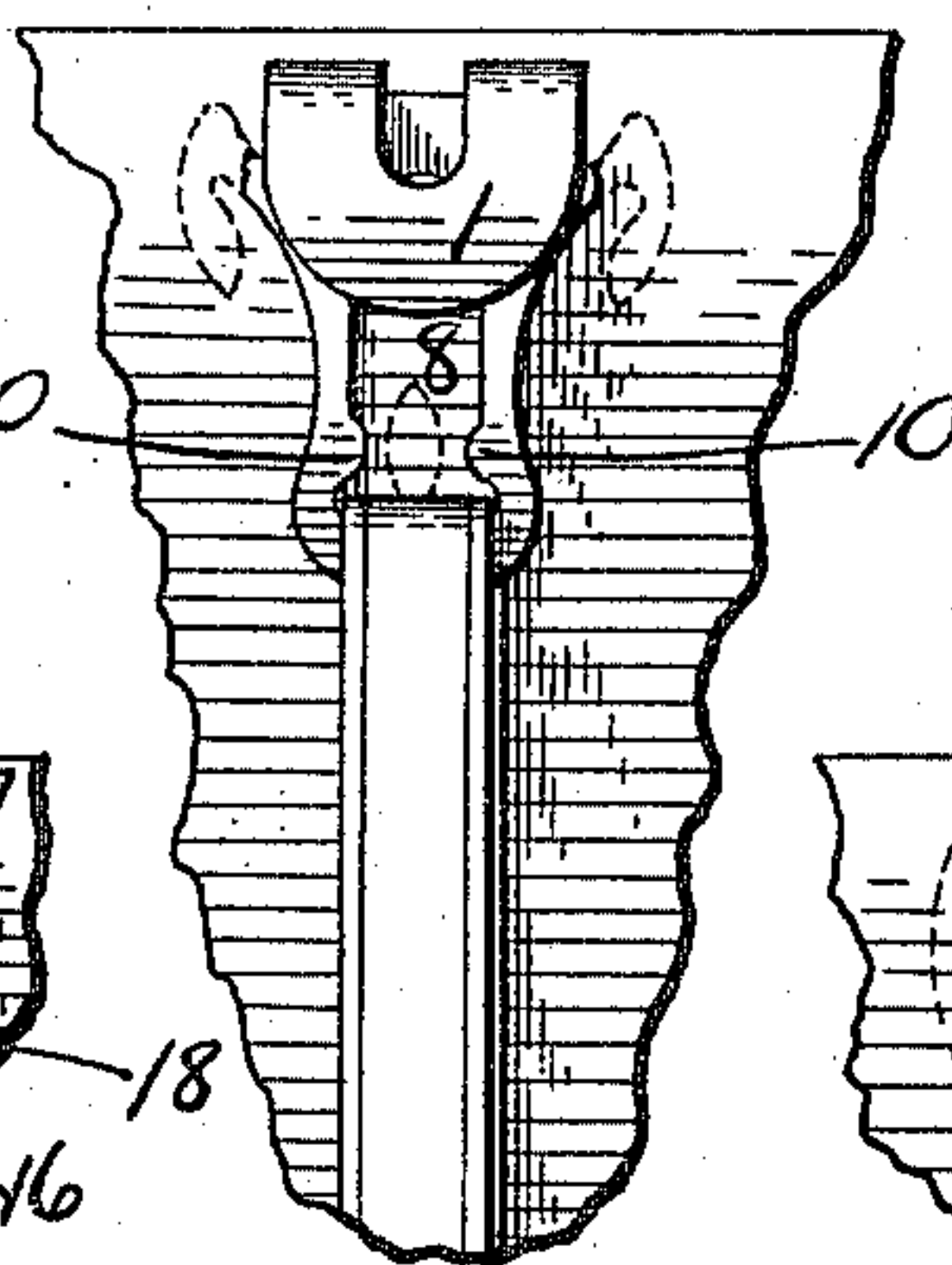


Fig. 16.

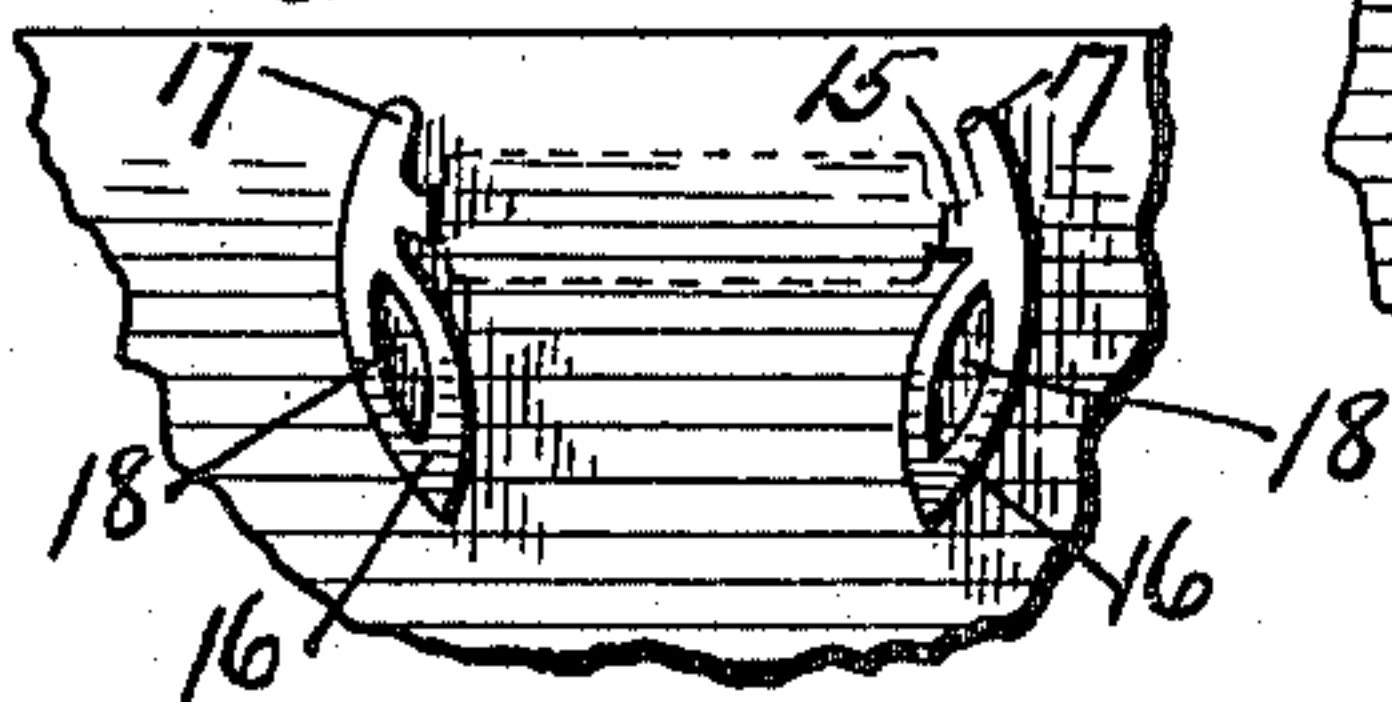


Fig. 17.

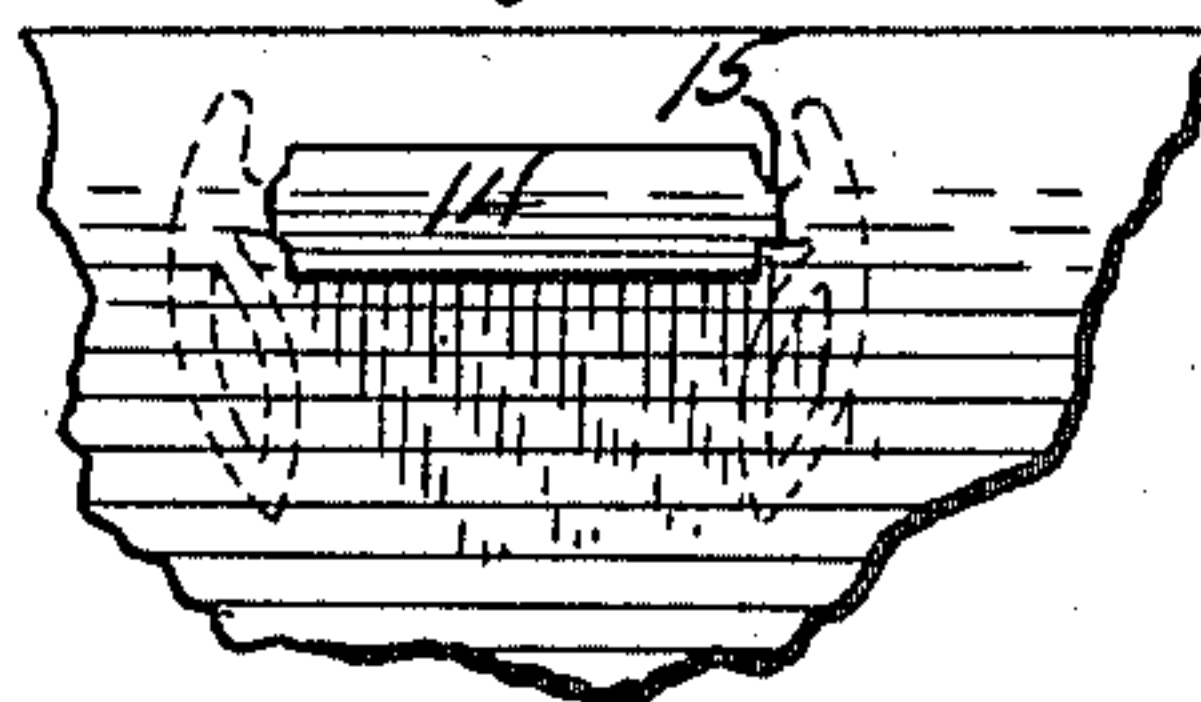


Fig. 18.

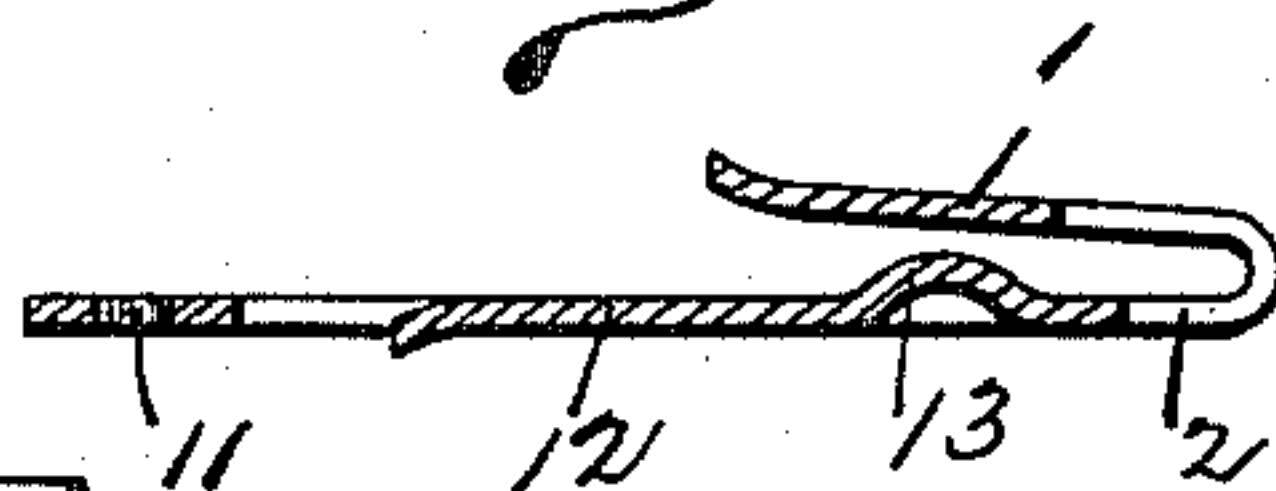


Fig. 19.

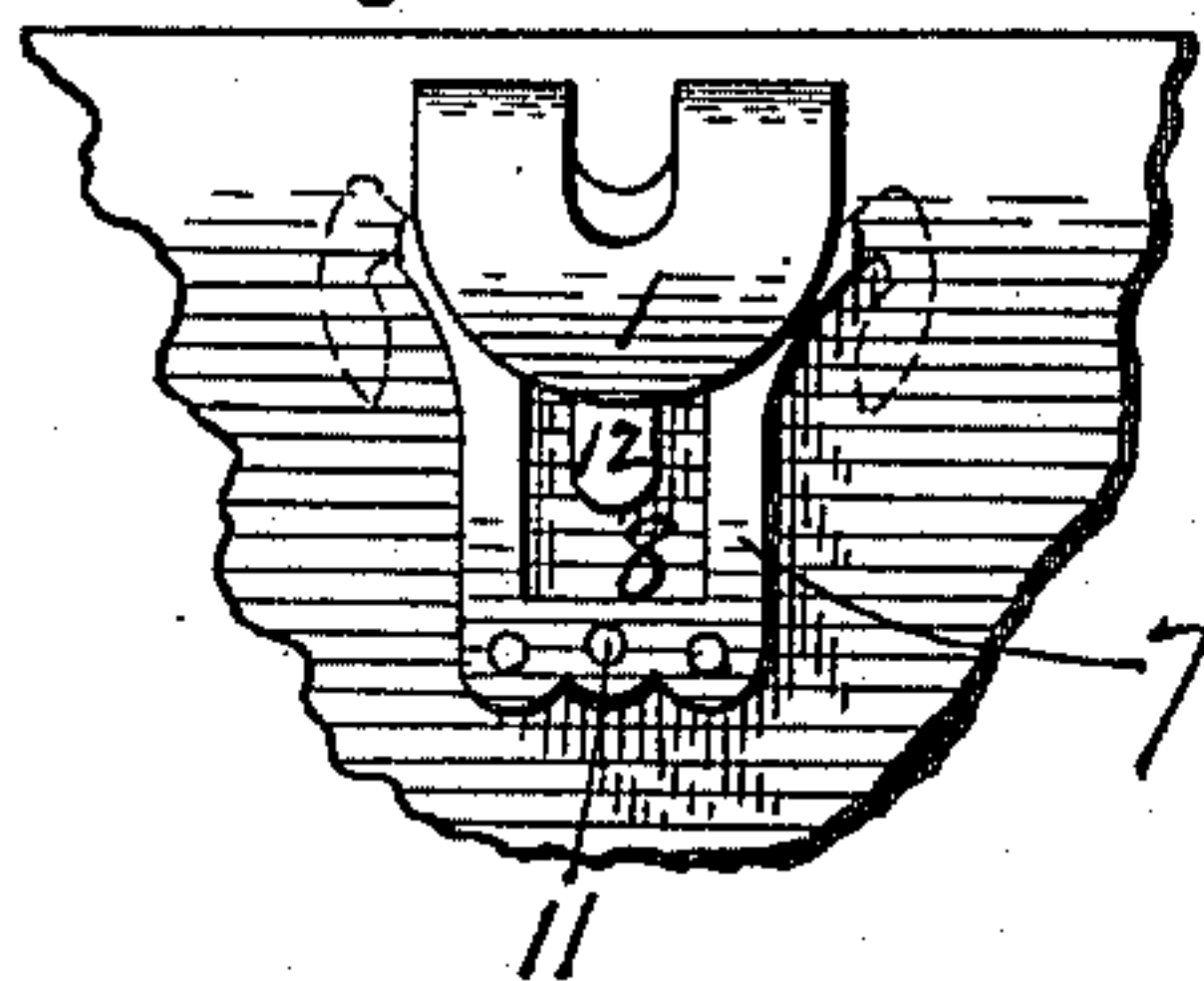
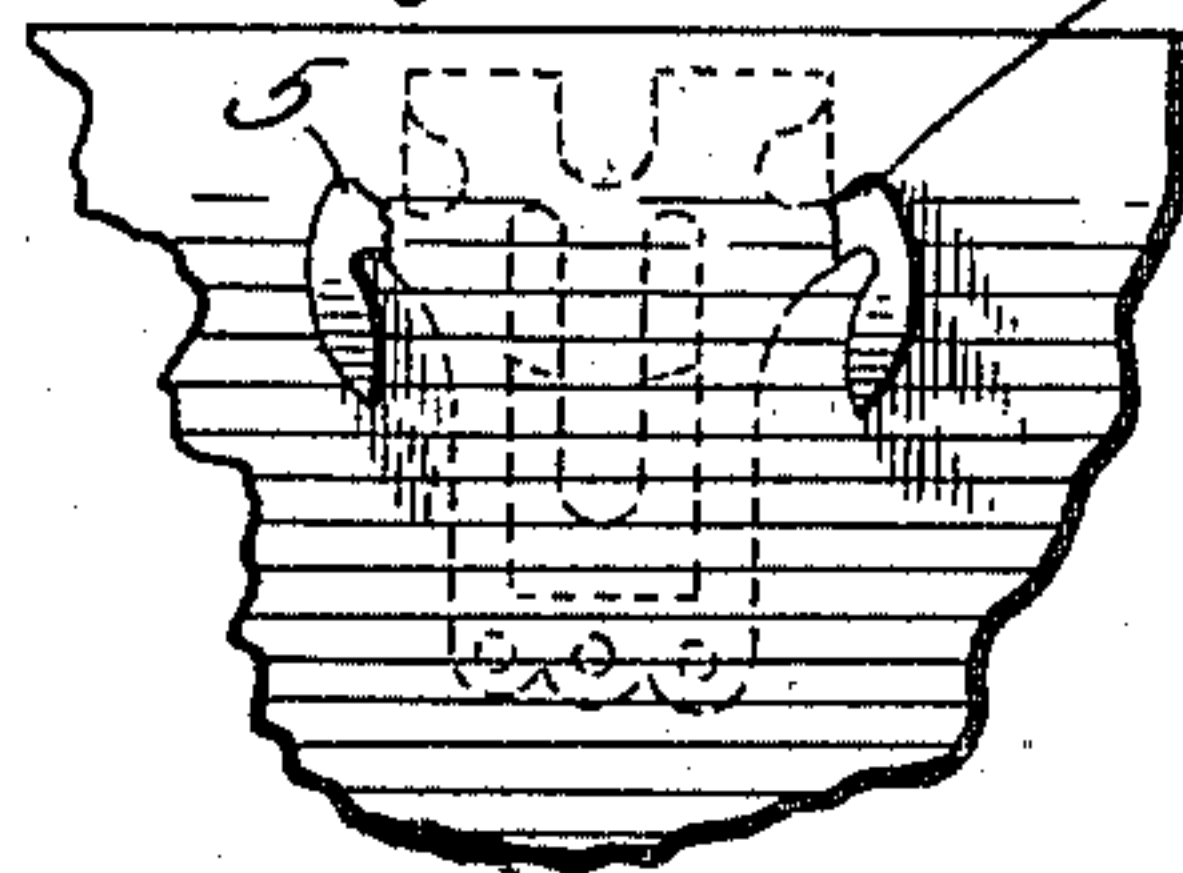


Fig. 20.



Witnesses:-

A. R. Appelman
A. Wilson

Inventors:

Joseph F. Schoeppl.
William Heeren.

By Henry C. Evert Atty.

UNITED STATES PATENT OFFICE.

JOSEPH F. SCHOEPL AND WILLIAM HEEREN, OF PITTSBURG,
PENNSYLVANIA.

HOOK AND EYE.

SPECIFICATION forming part of Letters Patent No. 581,921, dated May 4, 1897.

Application filed February 12, 1896. Serial No. 578,982. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH F. SCHOEPL and WILLIAM HEEREN, citizens of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Hooks and Eyes, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in hooks and eyes, and relates more particularly to that class of hook-and-eye connections that may be readily applied to garments without the necessity of stitching.

The invention has for its further object the provision of novel means whereby the hook-and-eye connection when inserted in the garment will assume a rigid and fixed relation thereto; furthermore, to so construct the above-referred-to parts that they will effectually prevent the cloth from becoming worn at the points of insertion of the hook-and-eye connection.

The invention has for its further object to design a hook-and-eye connection of the above-referred-to class that will obviate the necessity of piercing the fabric with an instrument preparatory to the insertion of the hook and eye, a further object being to provide new and novel means whereby the fabric is retained in a perfectly smooth condition when the hook-and-eye member is inserted in the cloth, thereby overcoming an undesirable feature of the cloth forming wrinkles, that would otherwise be the case; furthermore, to construct the hook-and-eye member in such a manner as to prevent the fabric from raveling at the points of connection of the hook and eye. Another point of advantage resides in the fact that the device may be readily removed from the garment and replaced as often as desired without danger of breaking or bending the same.

The invention still further contemplates to construct a hook-and-eye connection of the above-referred-to class carrying an accurate gage for the securing-points of both the hook and eye portions.

A still further advantage offered by the use of our improved hook resides in the novel and

peculiar construction of the portion forming the hook proper, and the narrow neck connecting the body portion thereof will allow the fabric to contract after the hook member has been inserted in position, thereby forming a connection between the hook member and fabric.

The invention further aims to securely lodge the hook and eye members within the fabric and prevent any lateral movement of the device that might be caused in time by constant wear of the garment.

The invention further contemplates to construct a device of the above-referred-to class that will be extremely simple in its construction, strong, durable, and comparatively inexpensive to manufacture.

With the above and other objects in view, the invention finally consists in the novel construction, combination, and arrangement of parts to be hereinafter more particularly described, and specifically pointed out in the claims.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like figures of reference indicate similar parts throughout the several views, in which—

Figure 1 is a view of a portion of a garment with our improved hook-and-eye connection attached thereto. Fig. 2 is a front view of the hook when stamped out. Fig. 3 is a similar view of the hook, showing the hook proper bent into position. Fig. 4 is a rear view of the same. Fig. 5 is a plan view of a modified form of hook when stamped out of metal. Fig. 6 is a similar view showing the hook portion proper bent into position. Fig. 7 is a rear elevation of the same. Fig. 8 is a front view of the eye connection. Fig. 9 is a similar view showing a slight modification of the wings. Fig. 10 is a front elevation of a modified form of eye connection. Fig. 11 is a longitudinal sectional view of the hook, showing the same inserted in the cloth. Fig. 12 is a similar view of the modified form of hook lodged in the fabric. Fig. 13 is a front elevation of the hook as inserted in the cloth. Fig. 14 is a rear elevation of the same. Fig. 15 is a front elevation of the hook inserted in the cloth and provided with a band. Fig. 16

is a rear view of the eye as inserted in the cloth. Fig. 17 is a front view of the same. Fig. 18 is an enlarged vertical sectional view of the modified form of hook. Fig. 19 is a front view of the modified form of hook inserted in the fabric. Fig. 20 is a rear view of the same.

In the drawings, 1 represents the hook portion proper; 2, the neck of the same, forming the connection between the part 1 and the body portion 3.

The reference-numerals 4 4 represent wings arranged at the side of the body portion, said wings being provided at their upper extremities with shoulders 5 5.

The reference-numerals 6 6 represent the points of connection between the wings and body portion.

The lower part of the device carries a frame 7, having a cut-away portion 8. Centrally arranged at the lower extremity of the cut-away portion is provided an upwardly-extending barb 9. The interior sides of the frame, near its base, carry inwardly-projecting shoulders 10 10, and centrally located at the lower extremity of the frame is arranged an eye 11.

Referring to the modified form of hook, the reference-numeral 12 represents a tongue centrally arranged to the neck portion and extending downwardly between the sides of the frame, the said tongue being provided with a hump 13.

Referring to the eye connection, 14 represents the cross-bar, provided at its end with connecting-strips 15, said strips connecting the cross-bar and downwardly-extending wings 16, and the latter are provided at their upper extremity with shoulders 17. The said wings 16 are preferably provided with eyelets 18 18.

The hook connection is inserted in the fabric as follows: One of the wings 4 is first inserted in the fabric, thus allowing the operator to exert a greater amount of force than in the case where it is necessary to insert both wings simultaneously, and the opposite wing is then forced into the fabric. In order to accurately gage and insert the barb 9 in its proper position, the fabric is marked at the point corresponding with the eyelet 11. This point is then brought in contact with the barb 9, the latter being forced through the fabric at this point, the shoulders 10 10 serving to hold the goods in a perfectly smooth condition, and the fabric will be securely lodged between the shoulders and the lower interior sides of the frame, as illustrated in Figs. 13 and 14 of the drawings. When the underlying lining of the garment is bias or the goods are composed of a delicate material, we have found it advantageous to apply a band or tape through the barb, as shown in Fig. 15 of the drawings, which will serve to divide the strain of the fabric. When the hook connection is in the position as above described, a slot is cut in the piece of goods to form the covering

for the front of the hook. This slot should be cut less in width than the hook and is then slipped over the latter, as shown in Fig. 11. By this operation the fabric will slightly expand as it is passed over the hook proper and will contract when the slot cut in the goods reaches the narrow neck, the fabric being firmly lodged between the shoulders of the wings and body portion of the hook and prevented from moving in either direction.

The modified form of hook, as shown in Figs. 5, 6, and 7 of the drawings, is placed in position in the fabric in a similar manner, as heretofore described, with the exception that the front or outer facing of the goods, where the slot is formed, is slipped under the tongue portion and over the neck proper, as illustrated in Fig. 12 of the drawings.

The eye connection is inserted in the fabric in a similar manner, the cloth at the point of insertion being lodged between the shoulders of the cross-bar and wings, the upwardly-extending shoulders of the wings serving to retain the device in proper position.

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A hook - and - eye - connecting device formed of a body portion and frame carrying wings, in combination with a barb, substantially as described.

2. A hook - and - eye - connecting device formed of a body portion and frame carrying wings, said frame being provided with inwardly-projecting shoulders, in combination with a barb extending toward the head and arranged centrally to the lower portion of said frame, substantially as described.

3. A hook - and - eye - connecting device formed of a body portion and frame carrying wings, said frame being provided with inwardly-projecting shoulders and a barb extending toward the head, in combination with an eye centrally arranged below said barb, substantially as described.

4. A hook - and - eye - connecting device formed of a body portion and frame carrying wings extending toward the end of the frame, said frame carrying a barb extending toward the head and provided with an eye, substantially as described.

5. An eye-connecting device, consisting of a cross-bar, wings extending approximately at right angles to the cross-bar, shoulders and curved connecting-strips between the wings and cross-bar, substantially as described.

6. In a device of the character described, a hook composed of a frame having an eye, inwardly-projecting shoulders barb and wings, a hook portion joined to the frame by a contracted neck in combination and eye-connecting device, as and for the purpose described.

7. A hook - and - eye - connecting device formed of a body portion, a contracted neck connecting said body portion and hook proper, in combination with wings and a frame carry-

ing inwardly-projecting shoulders, a barb extending toward the head, and an eye arranged at the lower extremity of said frame, all parts being constructed substantially as shown, and
5 for the purpose set forth.

8. In a device of the character described, a hook composed of a frame having an eye, inwardly-projecting shoulders barb and wings
10 a hook portion joined to the frame by a contracted neck, in combination a bar for connecting with the hook and means for securing the bar, as and for the purpose described.

9. In a device of the character described, a

hook composed of a frame having an eye, inwardly-projecting shoulders barb and wings 15
a hook portion joined to the frame by a contracted neck in combination a bar for connecting the hook, wings and a curved connection between the bar and wings.

In testimony whereof we affix our signatures in presence of two witnesses. 20

JOSEPH F. SCHOEPPPL.

WILLIAM HEEREN.

Witnesses:

H. C. EVERT,

H. E. SEIBERT.