

No. 756,876.

PATENTED APR. 12, 1904.

A. G. MILLER.
HOOK AND EYE.

APPLICATION FILED MAR. 31, 1903.

NO MODEL.

Fig. 1.

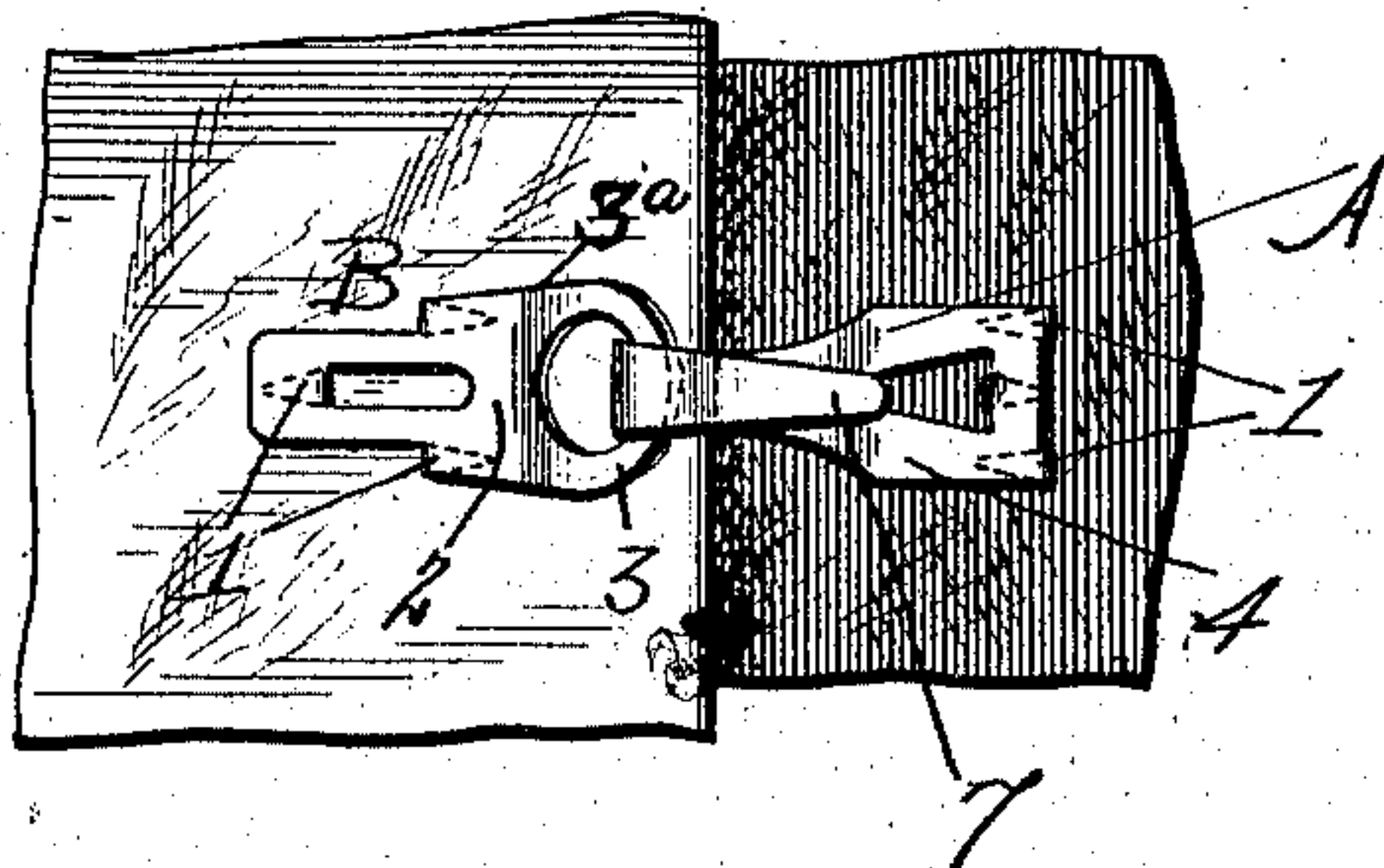


Fig. 2.

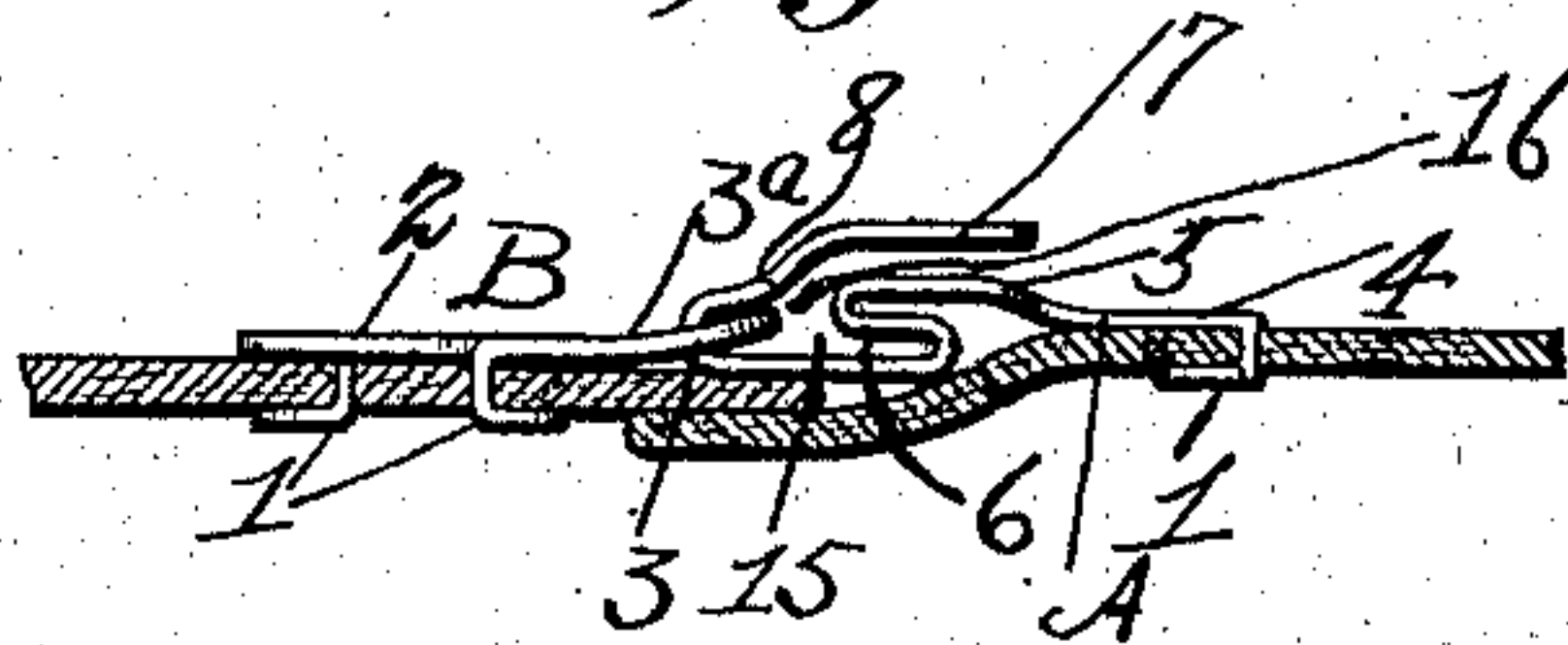


Fig. 3.

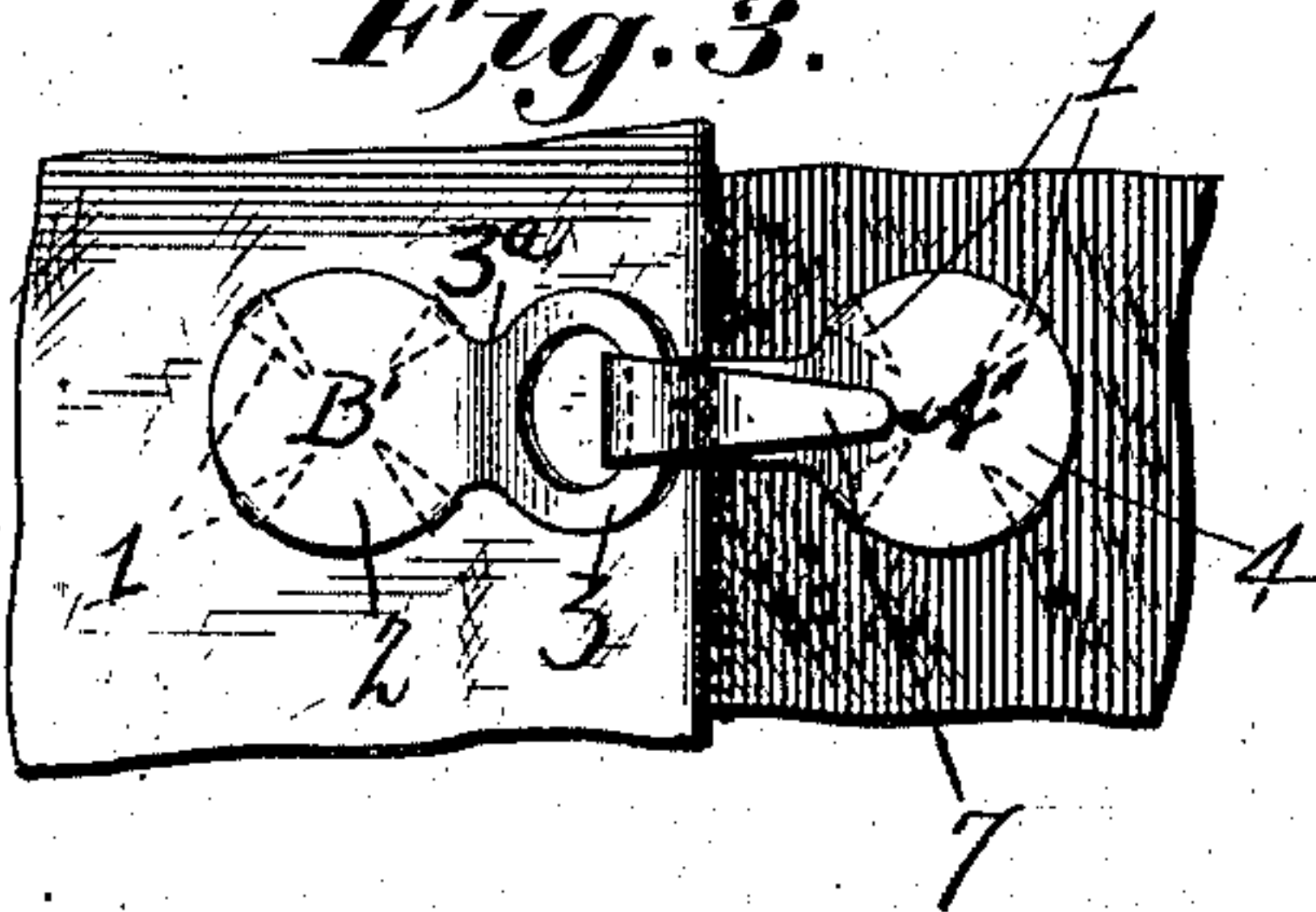


Fig. 4.

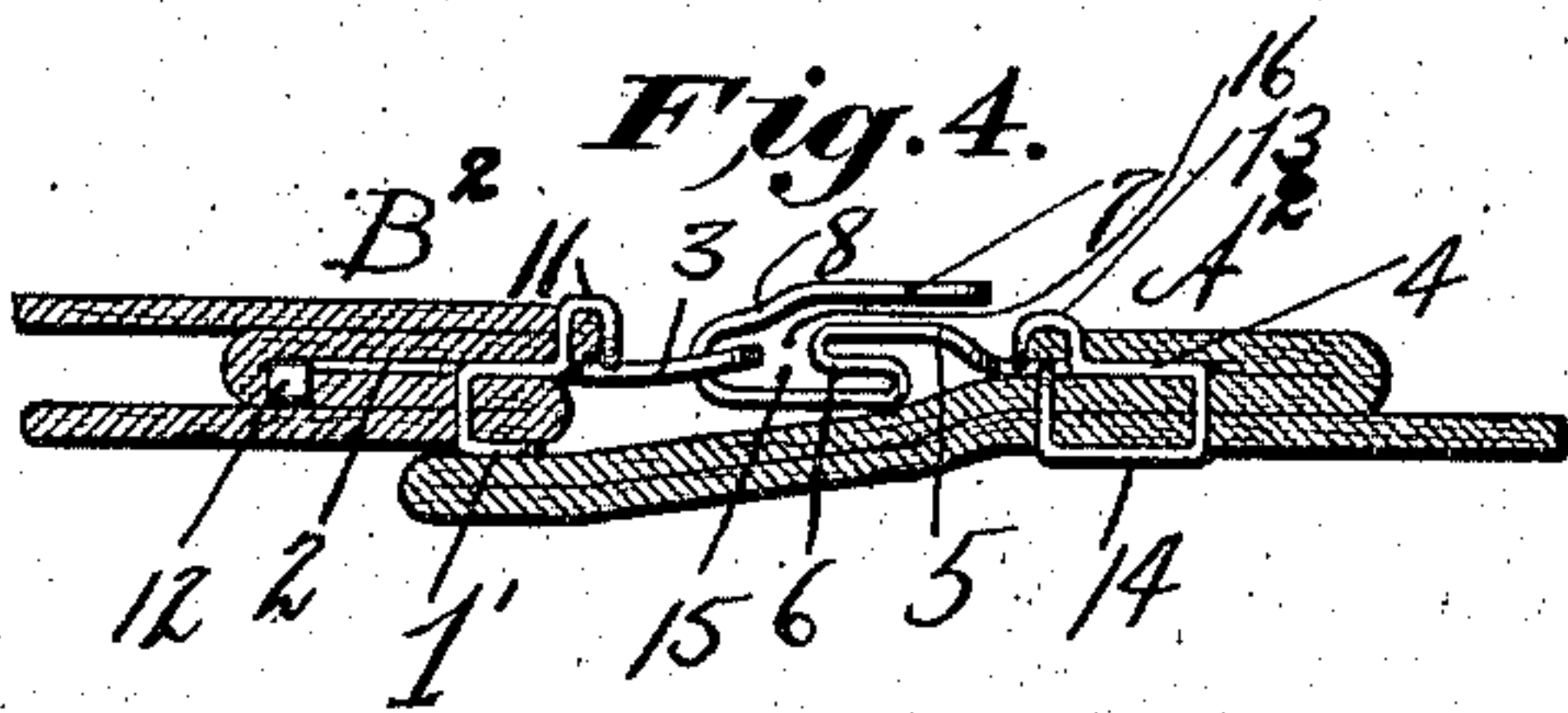


Fig. 5.

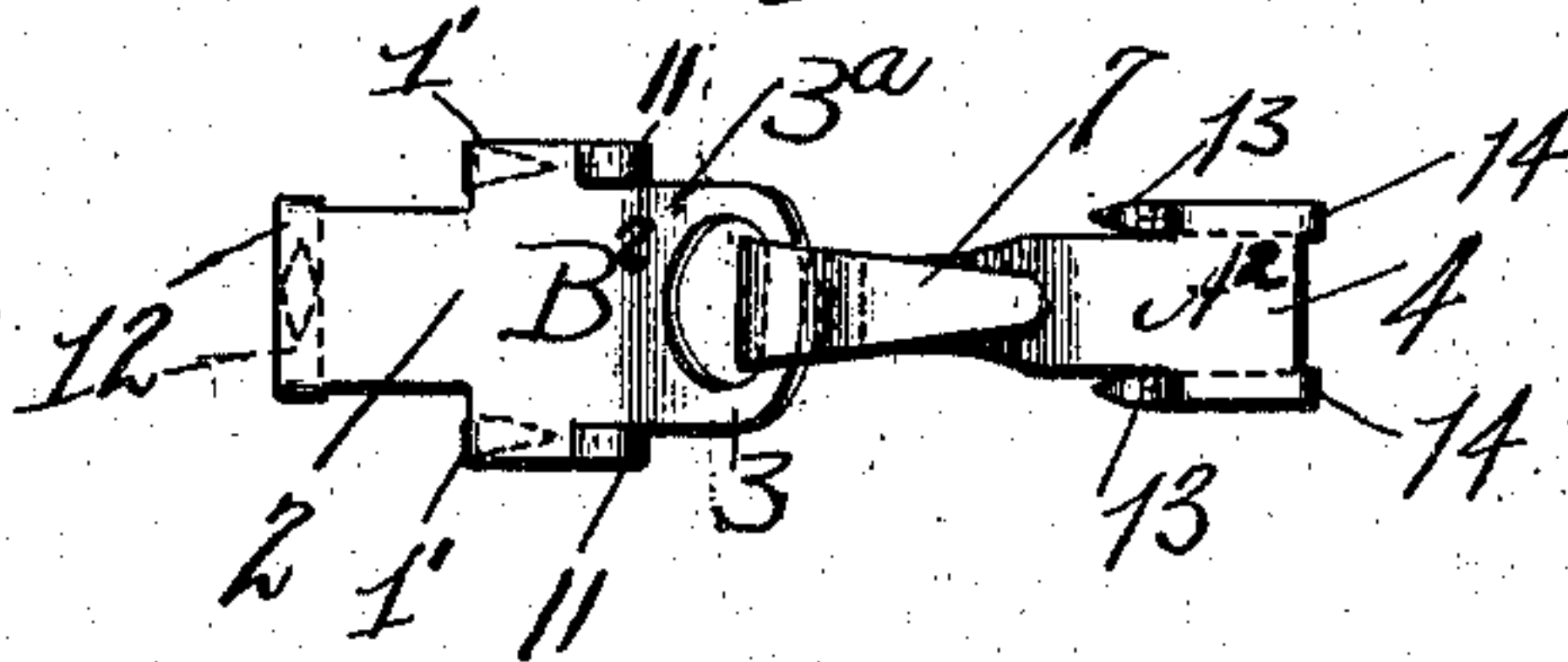
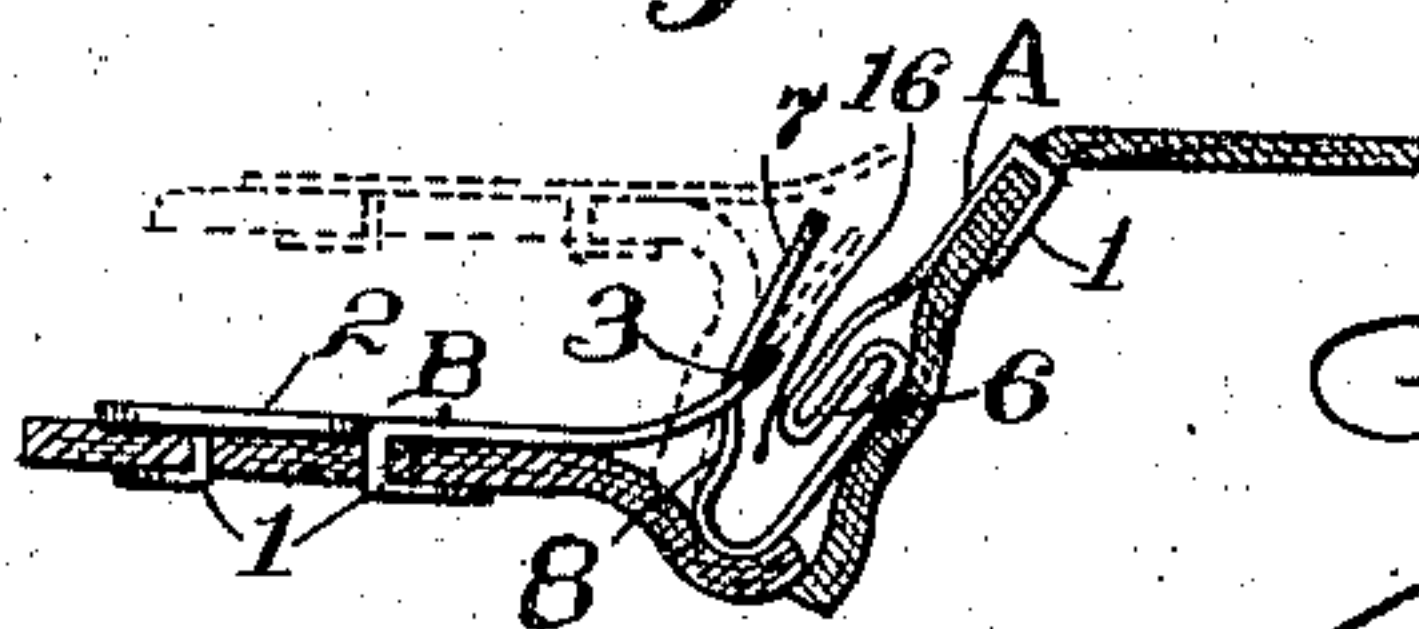


Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

ANNA GALBRAITH MILLER, OF MUSKEGON, MICHIGAN.

HOOK AND EYE.

SPECIFICATION forming part of Letters Patent No. 756,876, dated April 12, 1904.

Application filed March 31, 1903. Serial No. 150,413. (No model.)

To all whom it may concern:

Be it known that I, ANNA GALBRAITH MILLER, a citizen of the United States, and a resident of Muskegon, in the county of Muskegon and State of Michigan, have invented a new and useful Improvement in Hooks and Eyes, of which the following is a specification.

My invention relates to an improvement in hooks and eyes, the object being to provide a device of this character which can be hooked and unhooked with ease and without binding, thus avoiding the necessity of a stout pull, which will dislocate and tear off either the hook or eye, and yet at the same time to provide such a device as will absolutely prevent accidental disengagement.

A further object is to provide a hook and eye which may be easily and quickly secured to the material to which it is applied without sewing.

My invention also consists in certain other novel details of construction and combinations of parts, such as will be more fully described hereinafter, and particularly set forth in the claims.

In the accompanying drawings, Figure 1 is a top plan view of my invention. Fig. 2 is a view in side elevation. Fig. 3 is a top plan view of a slight modification. Fig. 4 is a view in side elevation of another slight modification. Fig. 5 is a top plan view thereof; and Fig. 6 is a side elevation of the form of hook and eye shown in Figs. 1 and 2, disclosing the manner of disengagement. The modifications shown are simply in the formation of the body portion, which is solid in Fig. 3 instead of skeleton, and of the claws and their manner of attachment, Figs. 4 and 5 showing a slightly different construction from that shown in Figs. 1, 2, and 3; but in all instances the hook and eye portions *per se* are precisely similar.

A represents the hook, and B the eye, both of which may be stamped or otherwise formed from sheet metal. Both the hook and eye are provided with bendable claws 1 1, struck out of and integral with the metal of which the

articles are made, the claws adapted to penetrate the material to which the hooks and eyes are attached and be clenched or bent over, as shown, in opposite directions, whereby to secure the articles to the material, thus serving to economize the metal of which the articles are formed.

The eye B comprises a base portion 2, which may be skeleton, as shown in Fig. 1, or solid, as shown in Fig. 3 at B'. Projecting at an angle from this base portion is the eye proper, 3, provided with an aperture for the reception of the hook, the object of raising or bending the eye portion, as at 3^a, being to permit the hook to be readily and easily inserted in and removed from the eye.

The hook A comprises a skeleton or solid base 4, provided with the claws 1 1, bent in opposite directions for securing it to the material, and a main portion, the metal forming which is first bent upwardly slightly, as at 5, similarly to the eye portion. The metal is then formed into a reëntrant bend 6, after which the metal is extended to form the eye-rest and finally is formed into the tongue 7, provided with a slight abutment 8, the tongue extending over the raised portion 5, which serves as a guard. The aperture 15, formed between and inclosed by the reëntrant bend 6 and the abutment 8, constitutes an eye-rest or receiver wherein the eye is permitted plenty of play, but cannot accidentally disengage itself from the hook, as the entrance 16 to this eye-rest is out of alinement with the passage between the tongue and the guard 5. The reëntrant bend also serves to prevent the accidental escape of the eye from the receiver or rest. The reëntrant bend is S-shaped, as shown, and comprises that portion of the material of the hook A between the upward bend 5 and the eye-rest 15, and the abutment 8 is located opposite and approximately on a plane with the S-shaped bend, the straight upper intermediate and lower members of the S-shaped bend being parallel with one another. To unhook the articles, a slight lateral movement is necessary to cause the eye to clear the reëntrant bend 6, after which by depressing

the hook and raising the eye and moving the articles toward one another the release of the eye from the hook is accomplished, as shown in Fig. 6. Thus it will be seen that the normal position of the eye when hooked is out of the direct path to the passage between the re-entrant bend and the abutment, or the space between the tongue and guard.

The construction of the articles is such that they may be easily cut or stamped out of sheet metal by means of machinery, and in this manner a simple and effective article is provided at a small cost.

In Fig. 3 I have shown a slight modification wherein the base portions of both hook A' and eye B' are made solid.

In Figs. 4 and 5 is shown a slight modification of the device shown in Figs. 1 and 2. The construction is nearly the same with the exception of the claws and prongs, the eye B' in the modification being provided, in addition to the claws 1' 1', with claws or prongs 11 11 and embracing claws or prongs 12 12 and the hook A' with claws or prongs 13 13 and 14 14 in place of the claws 1 1. This modification is designed for use primarily when the material to which the hooks and eyes are attached is folded, as shown in Fig. 4. The eye is received and contained between the double folds of cloth or other material, the claws 1' 1' penetrating the lower fold and being clenched therebeneath, the claws 11 11 penetrating the upper fold, clenched and bent downwardly again, and the claws 12 12 passing through one thickness of the material and clenched toward one another, as shown in Figs. 4 and 5. The claws 13 13 on hook A' are similar to claws 11 11 on eye B' and penetrating the upper thickness of the material are clenched and then bent downwardly, while the claws 14 14 penetrate the lower fold of the material, are clenched thereon, and the extreme ends bent upwardly, so that the points thereof are received directly beneath the claws 13 13, which form a shield and guard for the sharpened points of claws 14 14.

It is evident that slight changes might be made in the form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I do not wish to limit myself to the exact construction herein set forth.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is

1. As an article of manufacture, a hook and eye, means integral therewith for attaching and securing the hook and eye, the hook comprising a base, a guard, an S-shaped bend, formed of the material of which the hook is made, a tongue and an abutment formed on the tongue opposite the S-shaped bend, the abutment and bend inclosing an eye-rest, the

tongue lying over the guard, the passage between the tongue and guard being out of alignment with the passage between the abutment and the S-shaped bend.

2. As an article of manufacture a hook and eye, means on each member and integral therewith for securing the members to the material, the hook comprising a base, a raised guard, an S-shaped bend and a tongue lying over the guard, the tongue and bend inclosing an eye-rest for the reception of the eye.

3. As an article of manufacture, a pair of engaging members, one member provided with claws projecting above the base portion of the member and then bent downwardly and prongs projecting downwardly below the base and then upwardly, the ends of the prongs received within the space inclosed by the claws which serve as guards for the ends of the prongs.

4. As an article of manufacture, a hook and eye, the base of the eye provided with upwardly-projecting claws, embracing claws and downwardly-projecting prongs.

5. As an article of manufacture, the combination, with an eye, of a hook provided with a base, the material of which the hook is constructed being slightly elevated to form a guard connected to the base, an S-shaped bend extending downwardly from the guard, a tongue, the guard and tongue inclosing an eye-rest, the end of the tongue lying over the guard, the tongue provided with an abutment located opposite and approximately on a plane with the S-shaped bend.

6. As an article of manufacture, a hook comprising a base portion, an S-shaped bend formed by the material of which the hook is constructed, the S-shaped bend connected with the base and a tongue, the S-shaped bend and tongue inclosing an eye-rest which is located on a plane below that of the base portion, the tongue extending toward the base and over the S-shaped bend.

7. As an article of manufacture, a hook comprising an S-shaped bend with parallel members, a portion of the material of which the bend is formed constituting a base, and a tongue extending parallel with the parallel members of the S-shaped bend.

8. As an article of manufacture, a hook comprising an S-shaped bend having parallel members, a portion of which constitutes a base, an abutment located opposite the S-shaped bend and a tongue overlying the S-shaped bend and parallel with the parallel members of the S-shaped bend, the tongue and S-shaped bend inclosing an eye-rest.

9. As an article of manufacture, a hook comprising an S-shaped bend having parallel members, a deflected guard extending from one of the members of the S-shaped bend and terminating in a base, an abutment located op-

posite the S-shaped bend and a tongue over-
lying the S-shaped bend and parallel with the
parallel members of the S-shaped bend, the
abutment and S-shaped bend inclosing an eye-
5 rest, the passage between the tongue and S-
shaped bend being out of alinement with the
entrance of the eye-rest.

10. As an article of manufacture, a hook
comprising an S-shaped bend having upper,
10 intermediate and lower members, a portion of

the material of which the bend is formed con-
stituting a base and a tongue extending over
the upper member of the S-shaped bend.

In testimony whereof I have signed this
specification in the presence of two subscrib-
ing witnesses.

ANNA GALBRAITH MILLER.

Witnesses:

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