

No. 815,216.

PATENTED MAR. 13, 1906.

S. T. ROBERTS.
STRAP.

APPLICATION FILED APR. 29, 1905.

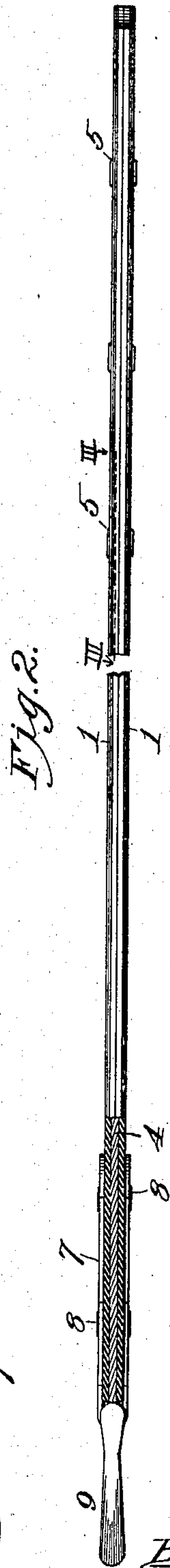
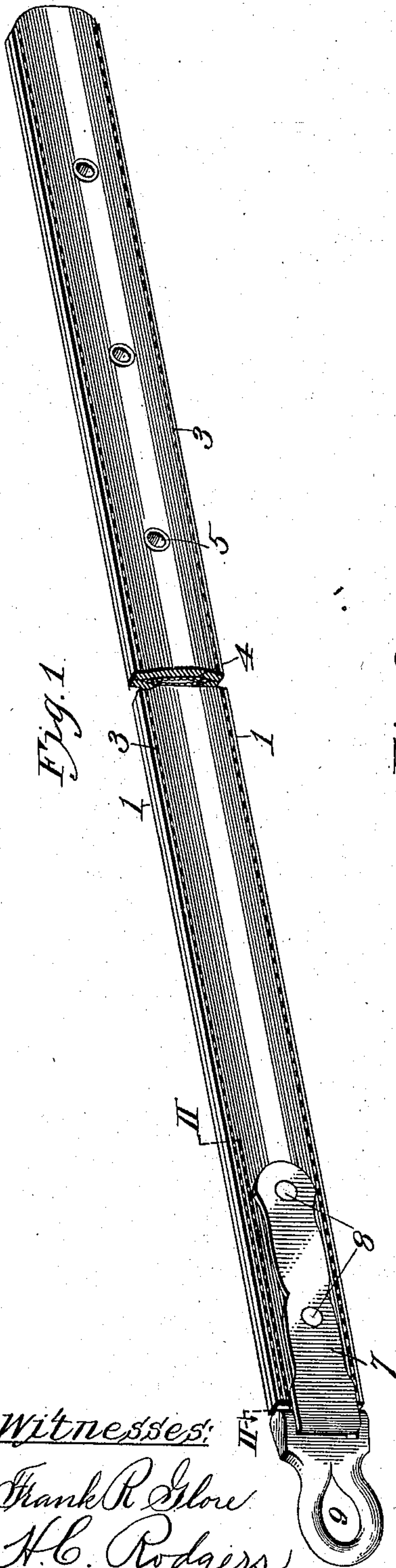


Fig. 6.

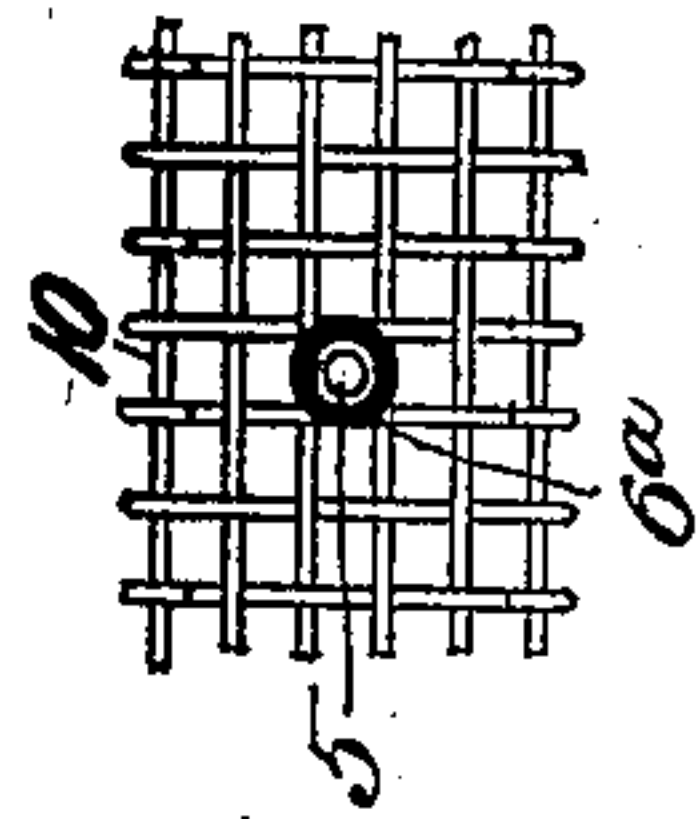


Fig. 5.

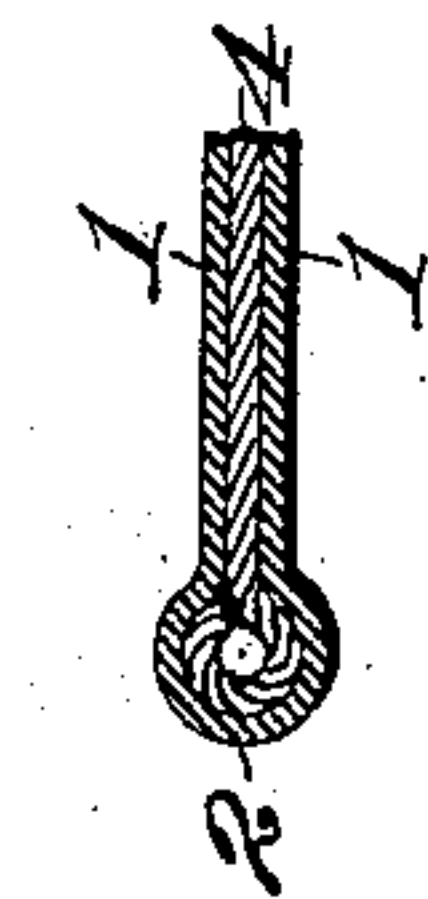


Fig. 4.

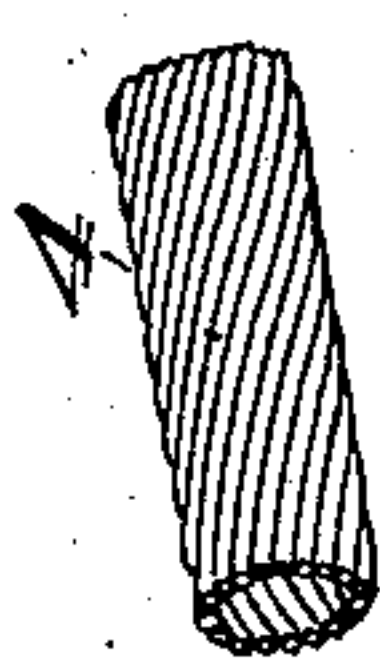


Fig. 3.

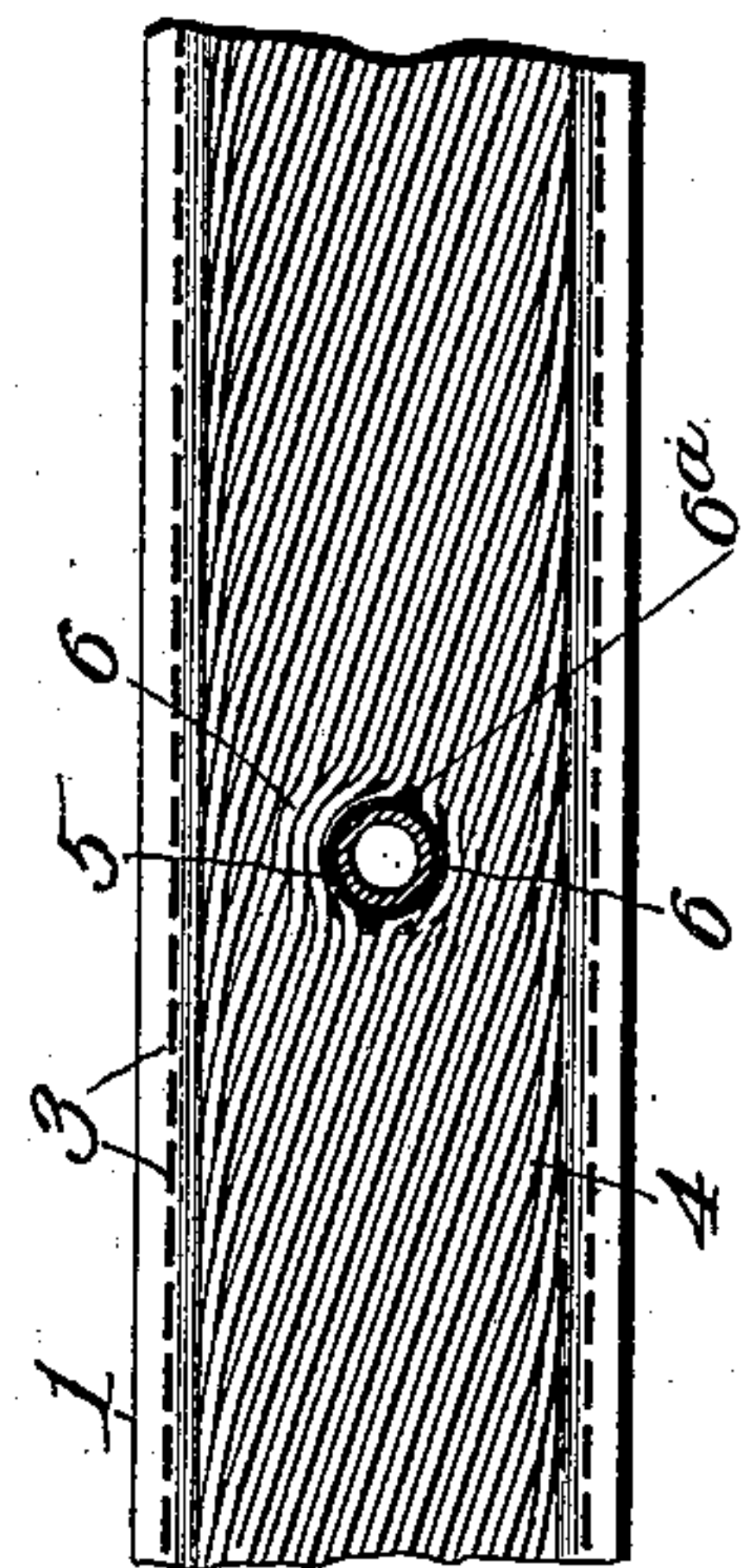


Fig. 7.



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UNITED STATES PATENT OFFICE.

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STRAP.

No. 815,216.

Specification of Letters Patent.

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Application filed April 29, 1905. Serial No. 258,127.

To all whom it may concern:

Be it known that I, SAMUEL T. ROBERTS, a citizen of the United States, residing at Springfield, in the county of Greene and State of Missouri, have invented certain new and useful Improvements in Straps, of which the following is a specification.

This invention relates to harness, and more especially to traces, hame-tugs, saddle-bearers, breeching, pole-straps, &c., which of necessity must be exceedingly strong and durable and at the same time flexible; and my object is to produce straps or devices of the character named or for other purposes provided with a metallic reinforcement to increase their strength and at the same time reduce their weight and cheapen their cost without detracting in any way from their appearance.

The invention essentially consists in constructing the strap of a pair of similar leather strips of much lighter weight, and therefore cost, than the ordinary strips and securing between them a flexible metallic strip composed of a plurality of strips or wires.

Other objects of the invention will hereinafter appear, and in order that the invention may be fully understood reference is to be had to the accompanying drawings, in which—

Figure 1 is a perspective view of a trace or tug embodying my invention. Fig. 2 is a view, partly in plan and partly in horizontal section, of the same on the line II II of Fig. 1. Fig. 3 is an enlarged section taken on the line III III of Fig. 2. Fig. 4 is a detail perspective view of the preferred type of metallic reinforcement. Fig. 5 is a horizontal section of the rear end of a trace embodying a modified construction. Fig. 6 is a front view of a modified type of metallic reinforcement, and Fig. 7 a perspective of a second modified type of construction.

In the said drawings, which represent a trace, as hereinbefore stated, but which exemplify the construction of any other heavy strap in which it is desired to secure the combination of strength, light weight, and cheapness of construction, 1 indicates a pair of leather strips which may be in the form of two separate strands, as shown in Figs. 1 and 2, or of a single strap doubled or folded back upon itself, as at 2 in Fig. 5. 3 indicates rows of stitching to secure said strips reliably together near their upper and lower edges.

4 indicates a flexible metallic reinforcement, preferably composed of a series of wires

coiled in the form of a hollow cable of substantially the same length as strips 1 and secured between them, said hollow or tubular wire cable being held in place by the stitching 3 above and below it and flattened, as shown in Fig. 1, where the strap is broken away. Where the strap is of such character that it must be engaged by a buckle, it is pierced to receive the eyelets 5, said eyelets also passing through the metallic reinforcement, by preference passing through said wire cable or reinforcement by spreading or bowing its contiguous strands in opposite directions, as shown at 6, so as to avoid cutting, and therefore weakening, the same, as shown clearly in Fig. 3, and to guard against dislocation of the eyelets they may be brazed or soldered to the reinforcement, as at 6^a.

Where the trace is to be engaged with the cockeye-loop 9, a metallic clasp 7 has its arms engaging opposite sides of the strap-rivets 8, passing through said arms and the strap to make the connection permanent, it being understood that rivets 8, like eyelets 5, will preferably pass through the metallic reinforcement by bowing the contiguous strands thereof in opposite directions, so as to avoid cutting or injuring the same. The usual loop 9 of the type shown or of any other suitable or preferred type is pivotally engaged by clasp 7 and is adapted to engage a hame-loop, or a buckle (not shown) may be employed in lieu of said cockeye, where circumstances or the character of the strap make the use of a buckle desirable.

In lieu of the hollow cable I may employ a flat coarsely-woven wire cable 10, as indicated in Fig. 6; but in either case the eyelets for receiving the buckle-tongue or the rivets for securing the clasp to the strap require no cutting of the wires of said cable, and therefore will hold said tongue or clasp reliably without danger of the leather portions of the strap being torn under any strain which can be imposed upon them.

In Fig. 7 is shown a finely-woven reinforcement 11, through which the eyelets and rivets may extend without regard to whether the wires are cut or not, as the said eyelets also extend through and are brazed or soldered to the thin metal clasp 12, which clasp will be employed in all cases where the desideratum is a strap of great strength and maximum flexibility, the latter being obtained by using a comparatively thin and light reinforcement, as in the figure last referred to.

A strap manufactured as described is as flexible as a heavier leather strap and is far cheaper, as the leather used for tugs, traces, &c., is of a very expensive grade and is sold only by weight. A strap embodying my improvement, furthermore, can be made of materially smaller cross-sectional area than an all-leather strap of approximately equal strength.

10 From the above description it will be apparent that I have produced a strap which may be used in any of the connections suggested and possesses the desirable features enumerated in the statement of the object of
15 the invention.

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

20 1. A strap, comprising a pair of leather strips fitting flatly together and secured to each other near their upper and lower edges, a reinforcement interposed between said

strips in the form of a flattened hollow wire cable.

2. A strap, comprising a pair of strips secured together, a reinforcement interposed between said strips in the form of a hollow wire cable, and eyelets extending through said strips and reinforcement.

3. A strap, comprising a pair of strips fitting and secured together, a reinforcement in the form of a flattened hollow wire cable interposed between said strips, clasps upon the reinforcement and between the strips, and eyelets secured to the clasps and extending
35 through the same, the reinforcement and the strips.

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

SAMUEL T. ROBERTS.

Witnesses:

J. T. FLANARY,
D. E. LICK.