

No. 671,400.

Patented Apr. 2, 1901.

G. L. REYNOLDS.
NAILLESS HORSESHOE.

(Application filed Aug. 23, 1900.)

(No Model.)

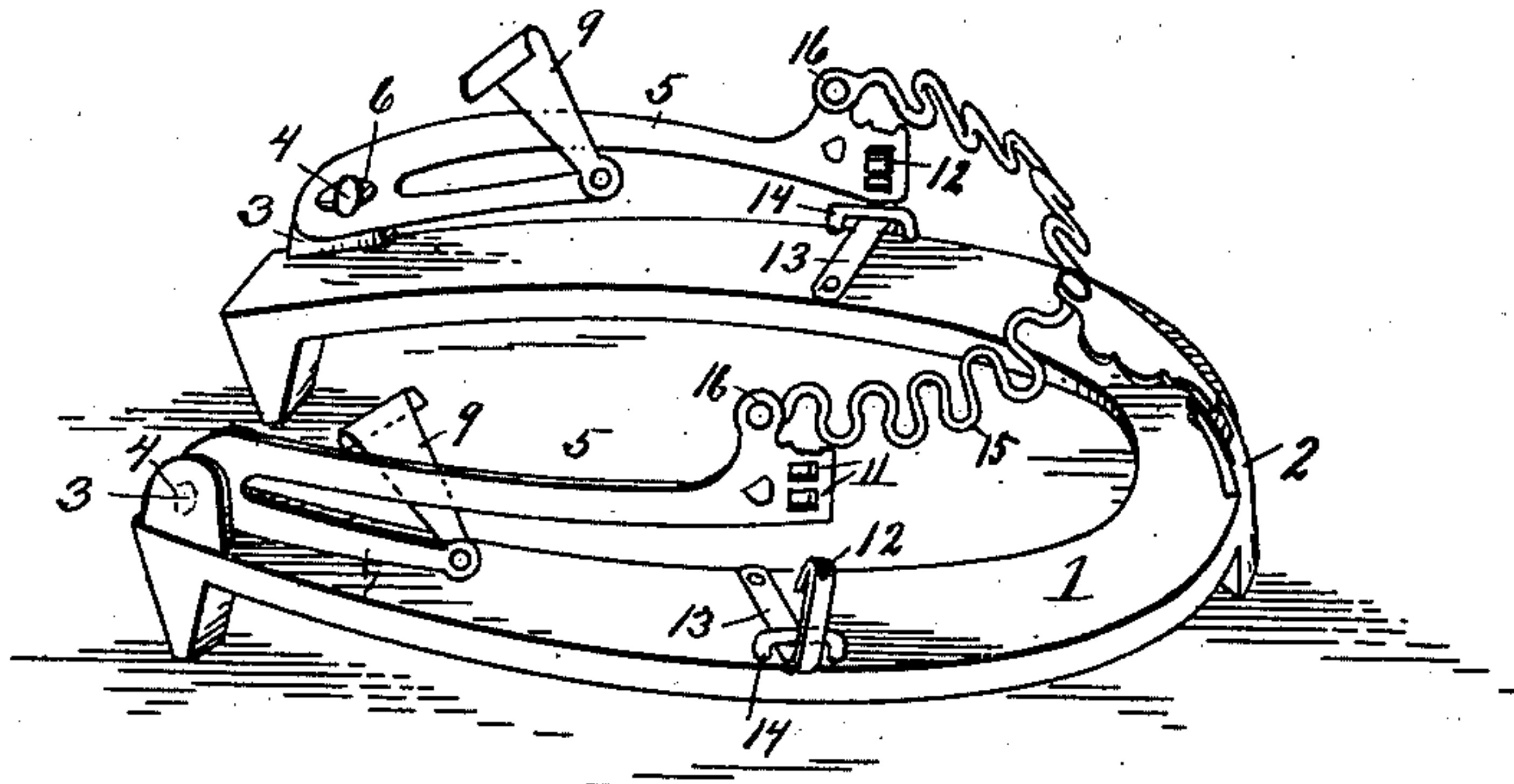


Fig. 1.

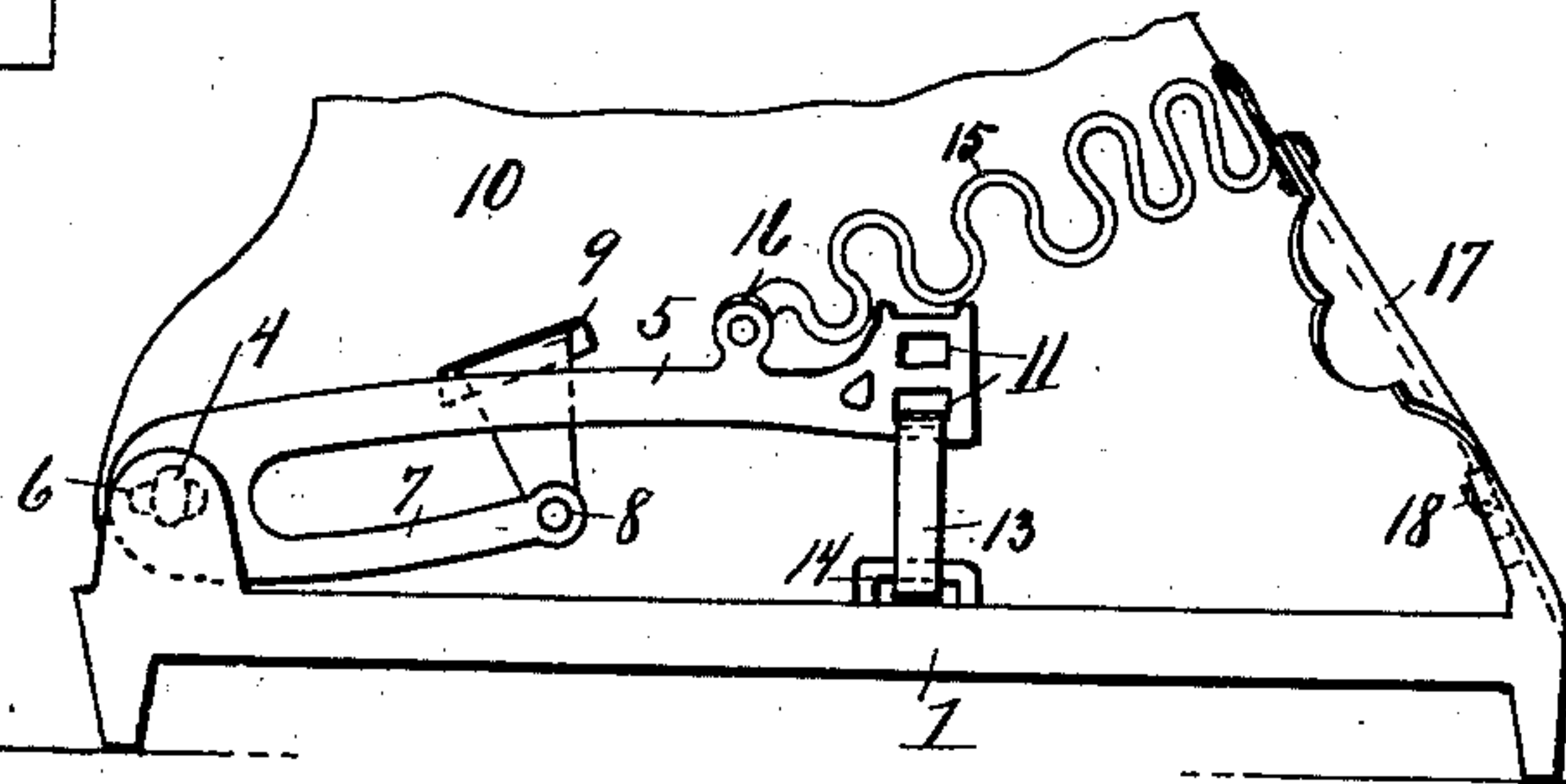


Fig. 2.

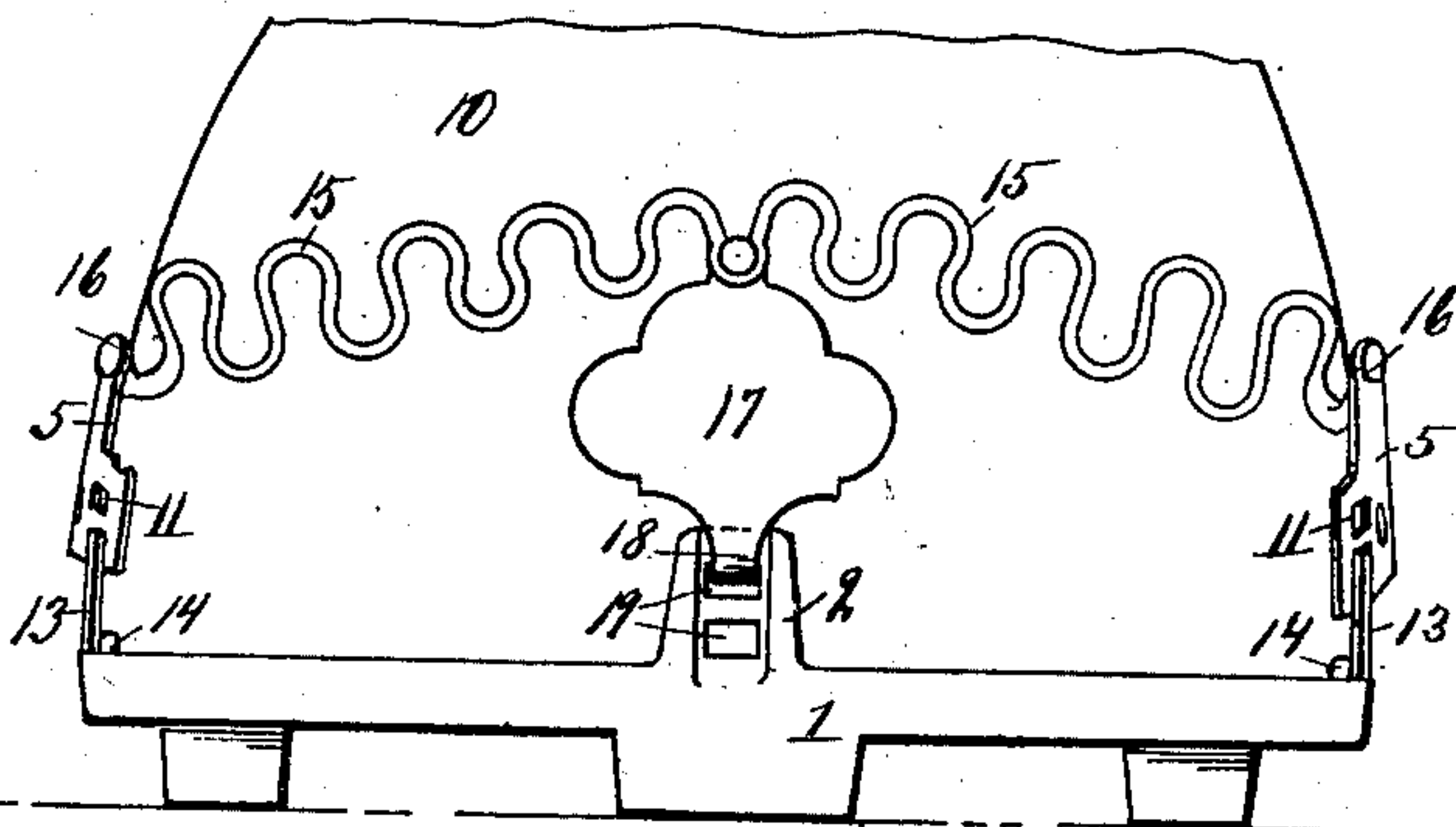


Fig. 3.

WITNESSES.

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UNITED STATES PATENT OFFICE.

GEORGE L. REYNOLDS, OF AUBURN, NEW YORK.

NAILLESS HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 671,400, dated April 2, 1901.

Application filed August 23, 1900. Serial No. 27,768. (No model.)

To all whom it may concern:

Be it known that I, GEORGE L. REYNOLDS, a citizen of the United States, residing at Auburn, in the county of Cayuga, State of New York, have invented certain new and useful Improvements in Nailless Horseshoes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to nailless horseshoes; and it consists in the construction and arrangement of parts hereinafter fully set forth, and pointed out particularly in the claims.

The object of the invention is to provide simple and efficient means for securely attaching the shoe to the hoof of a horse without the use of nails, the arrangement being such as to enable the shoe to be readily attached and detached when desired.

The above object is attained by the association of parts illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a horseshoe involving my invention. Fig. 2 is a side elevation showing the shoe attached to a hoof. Fig. 3 is a front elevation of the same.

Referring to the characters of reference, 1 designates the shoe, which at the front is provided with a vertical toe-piece 2, rising above the plane of the shoe, and at the rear, on each side, the shoe is provided with vertically-projecting ears 3. Extending laterally from the inner face of said ears is a pin 4, having an oblong head.

A spring-lever 5 is employed on opposite sides of the shoe, and each lever is provided at its rear with an oblong opening 6, adapted to pass over the head of the pin 4 when said lever is in a vertical position, whereby the lever becomes pivotally united to said ear when it is free and is swung downward to a horizontal position. The arrangement enables each of the levers to be detached from the ear of the shoe when desired. Said levers are practically double or composed of two members, comprising the main member

and a short under member 7, extending approximately parallel to said main member. Pivoted at 8 to the end of each of the shorter members of said levers is a grapple or hook 9, having an inwardly-turned edge adapted to engage a shoulder or recess formed in the hoof 10.

The outer end of each of the levers 5 is provided with apertures 11, in which the hooks 12 on the ends of the spring-metal straps 13 are adapted to engage, said straps crossing transversely the face of the shoe to which they are secured and passing under the staples 14, which assist in maintaining them in place.

A crimped or sinuous spring-metal band 15, curved to conform to the contour of the front of the hoof, extends between the forward ends of the spring-levers and is pivotally attached at its extremities thereto, as shown at 16. Attached to the center of said band is a plate 17, having a hook 18 at its lower end adapted to engage in the apertures 19 in the toe-piece 2.

In applying the shoe to the hoof of a horse the shoe is placed in position upon the hoof and the grappling-hooks 9 are caused to engage in the hoof at the proper point. The forward ends of the spring-levers 5 are then forced downward, and when the proper tension has been placed thereon they are engaged and held in place by the hooks 12, which enter the apertures 11 in the end of said levers, whereby downward pressure is exerted upon the grapple-hooks 9, which tends to hold the rear of the shoe up against the bottom of the hoof. The upward tendency of the free end of the levers 5 exerts an upward force upon the metal straps 13 and holds the shoe firmly against the hoof at that point. To secure the front of the shoe, the spring-metal band 15 is forced downward until the hook on the plate 17 is caused to engage in one of the apertures 19 in the toe-piece, when the upward force exerted by said spring-metal band will draw upon the front of the shoe, firmly retaining it in position.

It will be observed that by the means above described and shown the shoe is substantially held in contact with the hoof by spring-pressure, which is so applied as to maintain the shoe securely in position, obviating the pos-

sibility of the shoe becoming thrown or detached from the hoof except by the application of some unusual force.

When it is desired to remove the shoe, the
5 spring-metal band 15 is sprung downward, so as to permit of the disengagement of the hook 18 from the toe-piece. The forward end of the spring-levers 5 are sprung downward to allow of the disengagement therefrom of the
10 hooks of the straps 13, when said levers may be swung upward to relieve the grappling-hooks 9 and allow the removal of the shoe.

Having thus fully set forth my invention, what I claim as new, and desire to secure by
15 Letters Patent, is—

1. The combination of a horseshoe, levers pivoted thereto and carrying grappling-hooks adapted to engage the hoof, hooks attached to the shoe and adapted to engage the free
20 end of said levers, a spring-metal band attached to said levers and crossing the front of the hoof, and a hook carried by said band adapted to engage the shoe at the front.

2. The combination with the shoe, of the
25 locking-levers mounted on the shoe and carrying grappling-hooks adapted to engage the hoof, a sinuous metallic band crossing the front of the hoof and connected with the shoe at the sides, and a hook carried by said band
30 adapted to engage the shoe at the front.

3. The combination of the shoe, the locking-levers pivoted thereto, said levers having a short end, grappling-hooks attached to the short end of said levers, hooks attached to

the shoe and adapted to engage the long end
35 of said levers, a sinuous spring-metal band crossing the front of the hoof and attached at its opposite ends to said levers, and a hook carried by said band adapted to engage the shoe at the front. 40

4. The combination of the shoe, having the vertical ears at the rear and the vertically-projecting toe-piece at the front, the spring-levers pivoted to the ears of the shoe and having a short end to which a grappling-hook
45 is attached, means for locking the forward ends of said levers to the shoe, a flexible band connecting the forward ends of said levers, and a hook carried by said band adapted to engage said toe-piece. 50

5. The combination of the shoe, having the vertical ears at the rear and the toe-piece at the front thereof, the locking-levers detachably pivoted to said ears, each lever having
55 a forwardly-projecting short end, and a grappling-hook attached thereto, spring-hooks attached to the shoe and adapted to engage the forward end of said levers, a flexible metallic band attached to the free end of said levers and adapted to cross the front of the hoof, 60 and a hook carried by said band adapted to engage the toe-piece on the shoe.

In testimony whereof I sign this specification in the presence of two witnesses.

GEORGE L. REYNOLDS.

Witnesses:

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