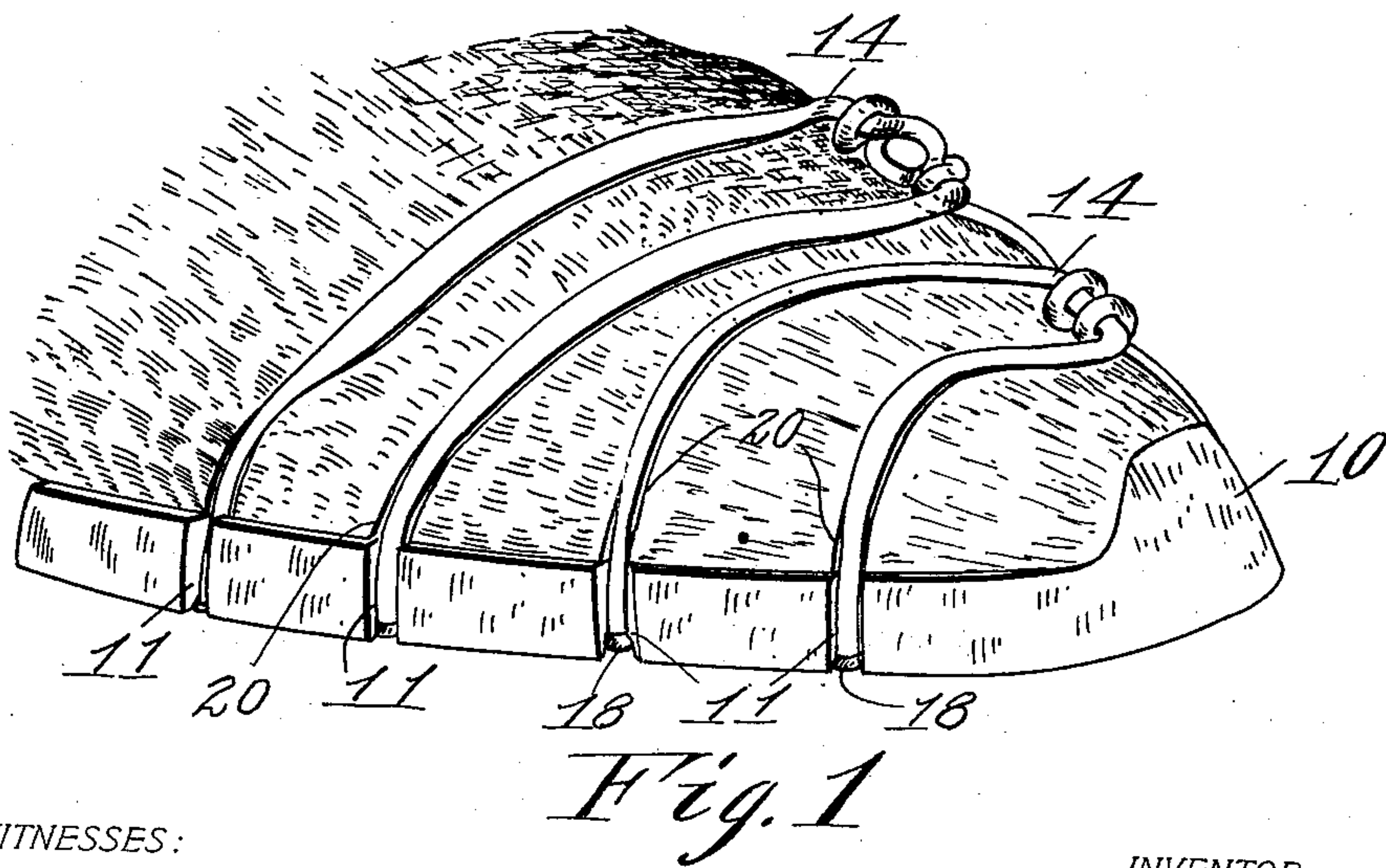
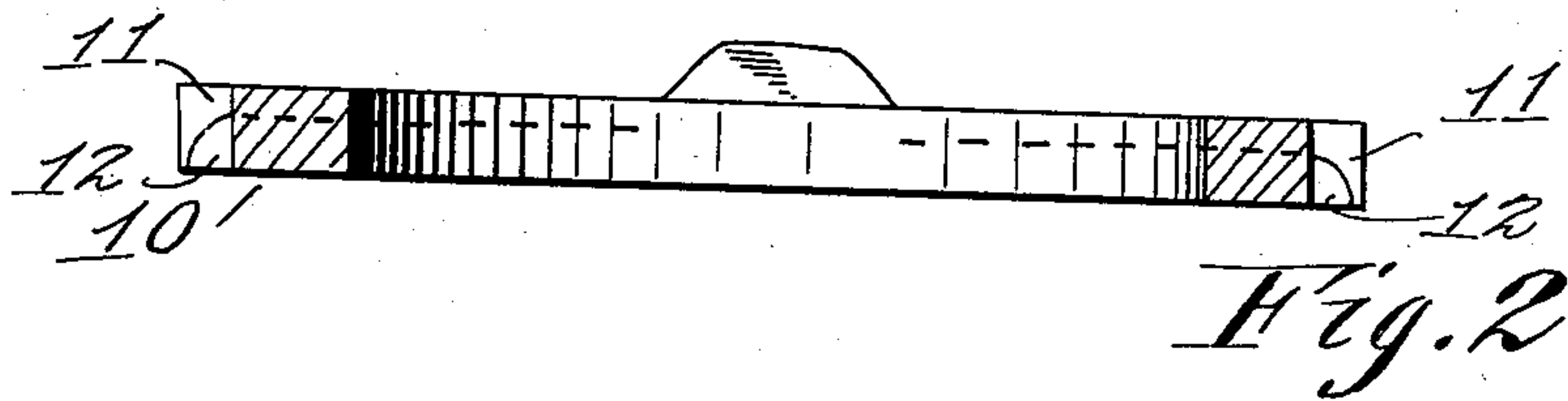
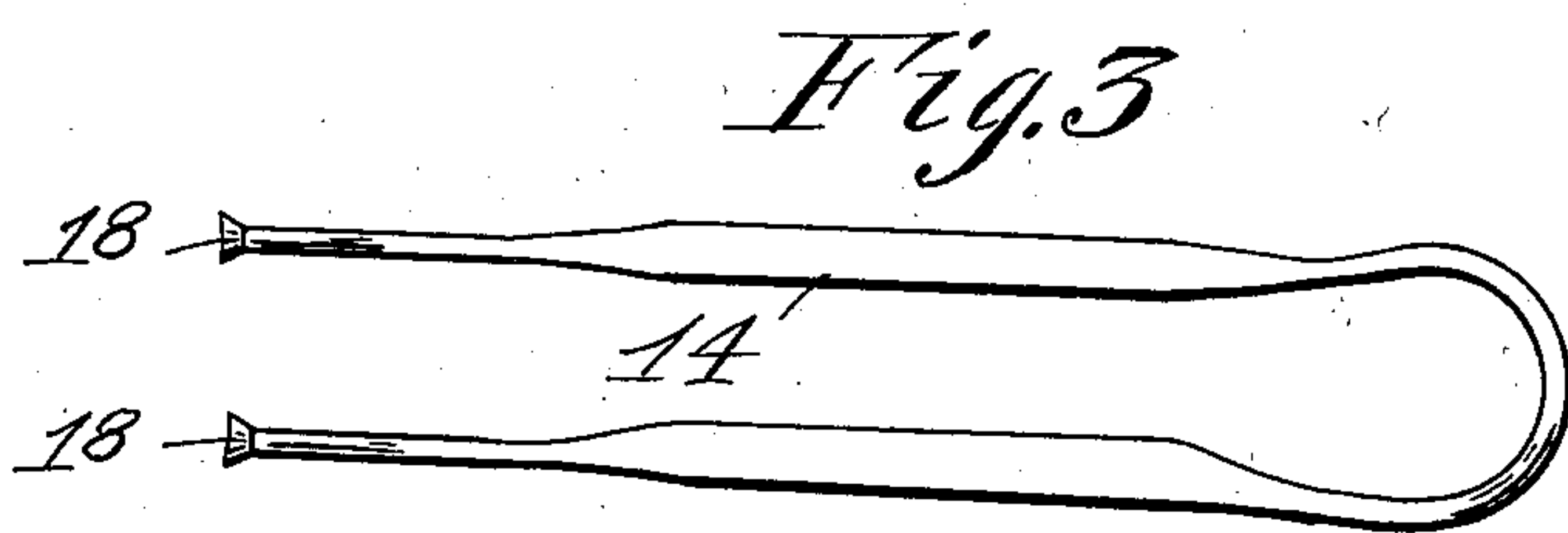
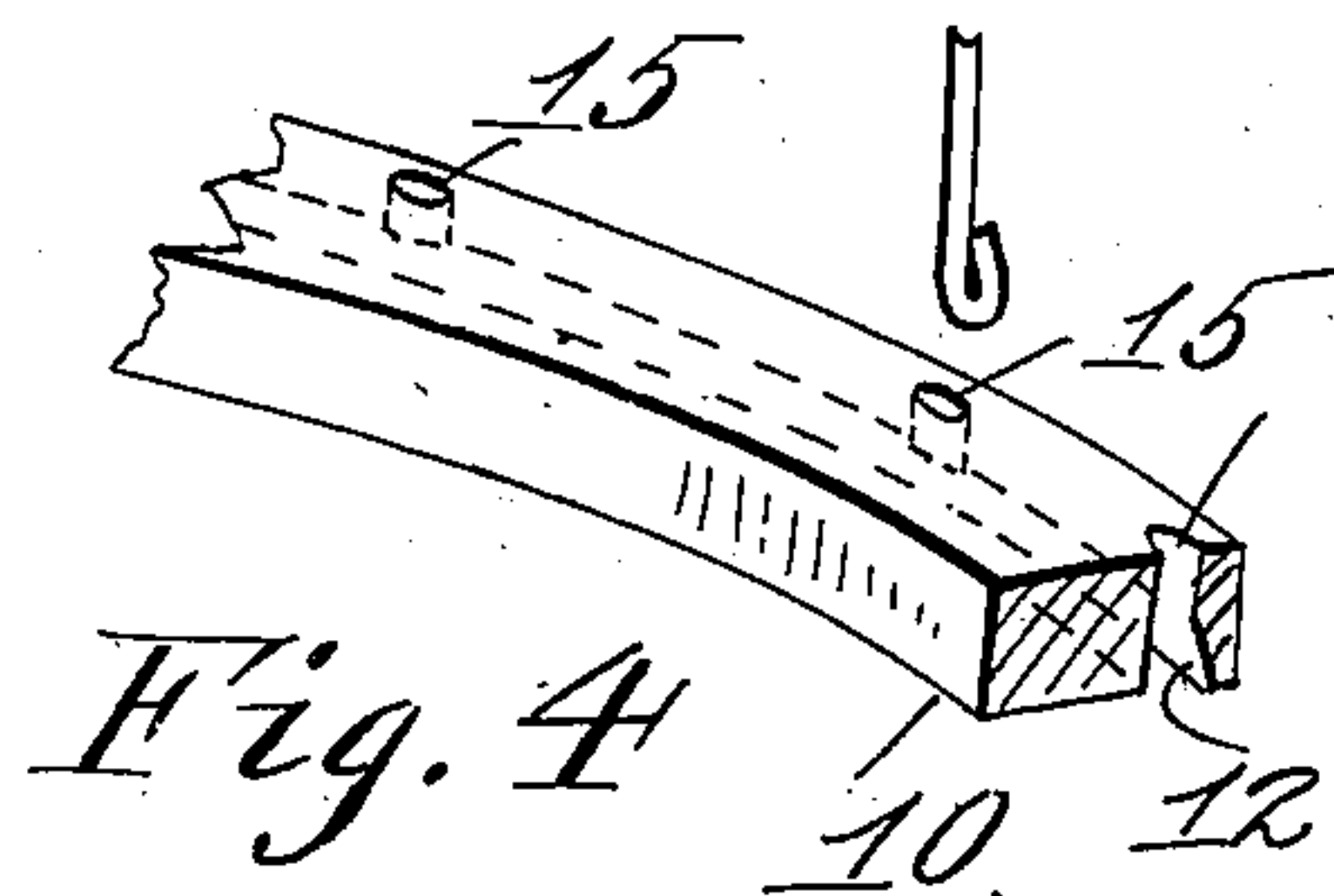


No. 742,509.

PATENTED OCT. 27, 1903.

C. W. SMITH.
NAILLESS HORSESHOE.
APPLICATION FILED DEC. 1, 1902.

NO MODEL.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES WELLINGTON SMITH, OF RENTON, WASHINGTON.

NAILLESS HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 742,509, dated October 27, 1903.

Application filed December 1, 1902. Serial No. 133,509. (No model.)

To all whom it may concern:

Be it known that I, CHARLES WELLINGTON SMITH, a citizen of the United States of America, and a resident of the city of Renton, in the county of King and State of Washington, have invented certain new and useful Improvements in Nailless Horseshoes, of which the following is a specification.

My invention relates to improvements in horseshoes known as "nailless" shoes, and has special reference to such a shoe and means by which it is secured in place on the hoof.

Among numerous objects attained by this invention and readily understood from the following specification and accompanying drawings, included as a part thereof, is the production of simplified and inexpensive means whereby a horseshoe is secured in place on the hoof in a most efficient and durable manner, which insures it from loss and permits of it being readily detached and replaced.

The above-mentioned and other objects equally as desirable are attained by the construction, combination, and arrangement of parts as disclosed on the drawings, set forth in this specification, and pointed out in the appended claims.

With reference to the drawings filed herewith and bearing like reference characters for corresponding parts throughout, Figure 1 is a view in perspective of the lower portion of a hoof of a horse or like animal, showing a shoe secured in place by my improved means. Fig. 2 is a transverse section of a horseshoe, indicating the notches adapted to receive the bands employed to secure the shoe in place. Fig. 3 is a view in plan of one of the binders employed in fastening the shoe in place, and Fig. 4 is a view in perspective of a portion of a modified form of shoe and the end of one stem of a modified form of band.

Reference character 10 indicates a horseshoe, which in the main is of the ordinary construction, but is formed with notches 11 in the outer side edge, which extend inwardly to the usual nail-groove, as 12. These notches are disposed at suitable points to receive the ends of the stems of binding-bands, as 14, by which the shoe is fastened in place, as will be hereinafter more fully set forth.

In Fig. 4 a modified form of shoe is disclosed, in which apertures, as 15, are substituted for

notches 11, this form being preferred for frail shoes of light weight, such as used on race-horses, for the reason that the shoe is weakened less by the apertures than it would be by the notches.

To secure the shoe in place on a hoof, binders composed of oppositely-disposed bands 14 are employed, and each of these bands is preferably rendered of sections of suitable pliable metal conveniently bent to substantially U shape, with the stems of suitable length to reach from the under side of the shoe over the hoof to a point slightly beyond the center of the top, so that the ends of contiguous bands will overlap and can be twisted together to draw the shoe firmly to place. The free ends of the stems of these bands are preferably upset to form heads, as 18, Fig. 3, when the bands are to be used in connection with the shoes formed with notches 11, and the bands as now considered for both forms of shoes disclosed are rendered with the center portion of the stems substantially flat, while the head and the outer portions of the free ends of the stems are made round. The free ends of the stems of the bands employed to secure a shoe of the construction disclosed in Fig. 4 in place are not upset, but are left uniform throughout until they are passed through apertures 15, when the extremities of the ends of the stems are bent upon themselves, Fig. 4, to form the heads, and thereby secure the band to the shoe.

To set a shoe of the above description with the bands disclosed, the shoe is first placed in position against the hoof and marks made on the side of the hoof at points where the notches 11 occur. The shoe is then removed, and grooves, as 20, are formed in the outer surface of the hoof at these points from the lower edge upwardly and of suitable width to receive the stem of the binding-bands. The bands are then engaged with the shoe and the shoe is set with the stems of the bands in said grooves. The overlapping head portion of one band of a pair is then passed through the head of the other, when a suitably-pointed tool, as a file, can be engaged with the hoof between the overlapping heads and used as a lever to draw upon the bands, and thereby bring the shoe firmly to place, and the head end of one band is then bent up-

wardly and rearwardly over the head of the other band to secure them together and complete the binder.

By using binders composed of the oppositely-disposed U-shaped bands, as heretofore set forth, a shoe can be set in a most rapid and efficient manner, and the binders will act with the grooves in the hoof to securely hold the shoe from displacement. These binders are simple and inexpensive in construction and offer efficient service in holding the shoe in place, as the stems of each band when drawn to embrace the hoof tightly and readily conform to the contour of the hoof, owing to the pliability of the material of which they are composed, and act conjointly to keep each other from shifting, while the flattened portions of the stem afford a substantial bearing on the hoof and the round head portion permits of the bands being more readily fastened together.

Having thus described my invention, what I claim as new, and desire to claim by Letters Patent of the United States of America, is—

1. The combination with a horseshoe, of a plurality of substantially U-shaped bands attached to the horseshoe at opposite sides thereof and interlooped and twisted together

over the center of hoof, substantially as described.

2. The combination with a horseshoe, having openings therethrough, of a plurality of substantially U-shaped bands arranged in oppositely-disposed pairs, each pair having their free ends passed through the openings and secured to the shoe and having their looped ends inserted one through the other and twisted upon each other, substantially as described.

3. The combination with a horseshoe having openings therethrough, of a plurality of substantially U-shaped bands provided with flattened intermediate portions and having their free ends passed through the openings and headed, said bands being arranged in oppositely-disposed pairs, each pair having their looped ends inserted one through the other so as to extend on opposite sides of the center of the hoof and twisted to securely fasten them together, substantially as described.

Signed at Seattle, Washington, this 22d day of October, 1902.

CHARLES WELLINGTON SMITH.

Witnesses:

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