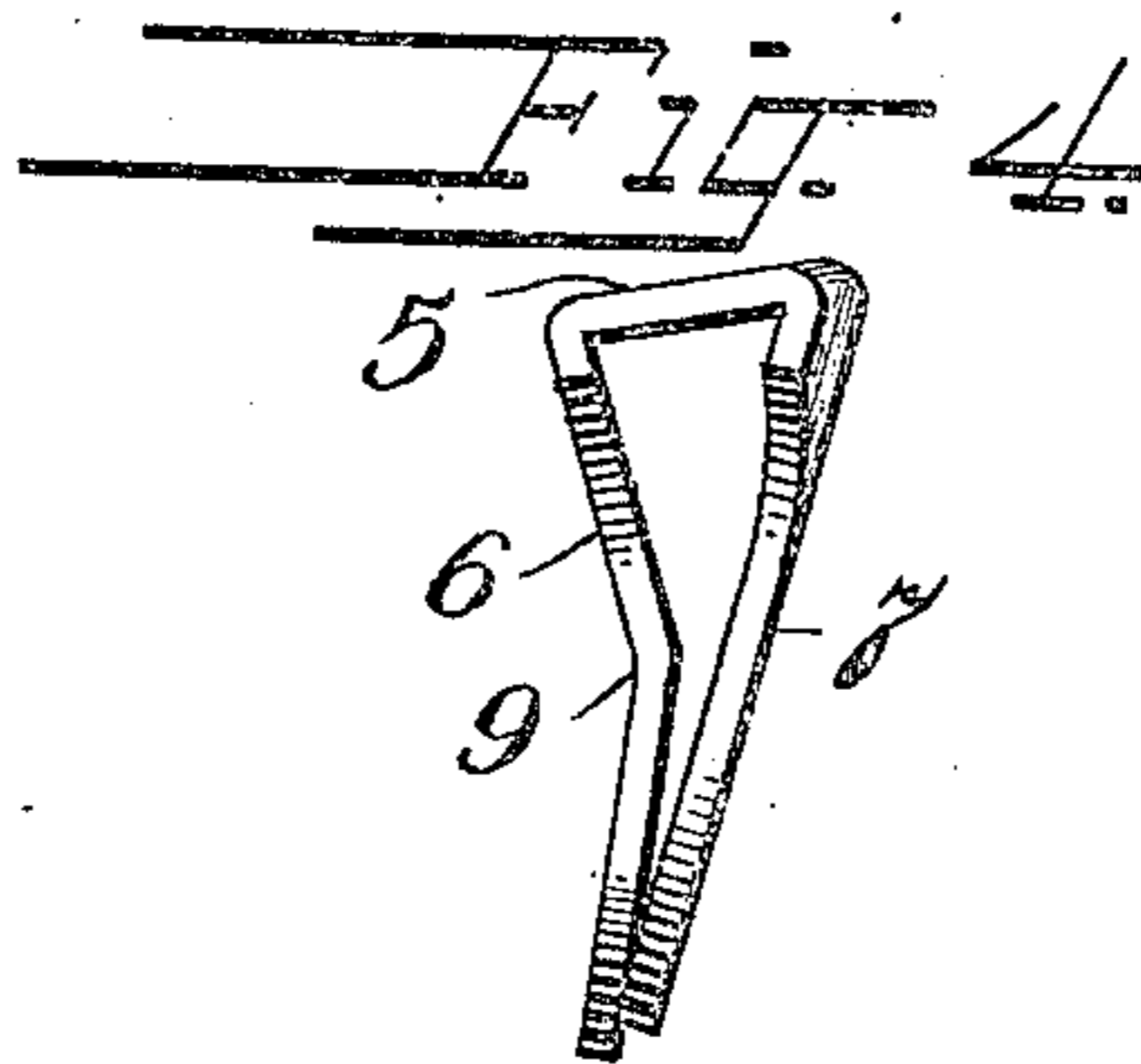
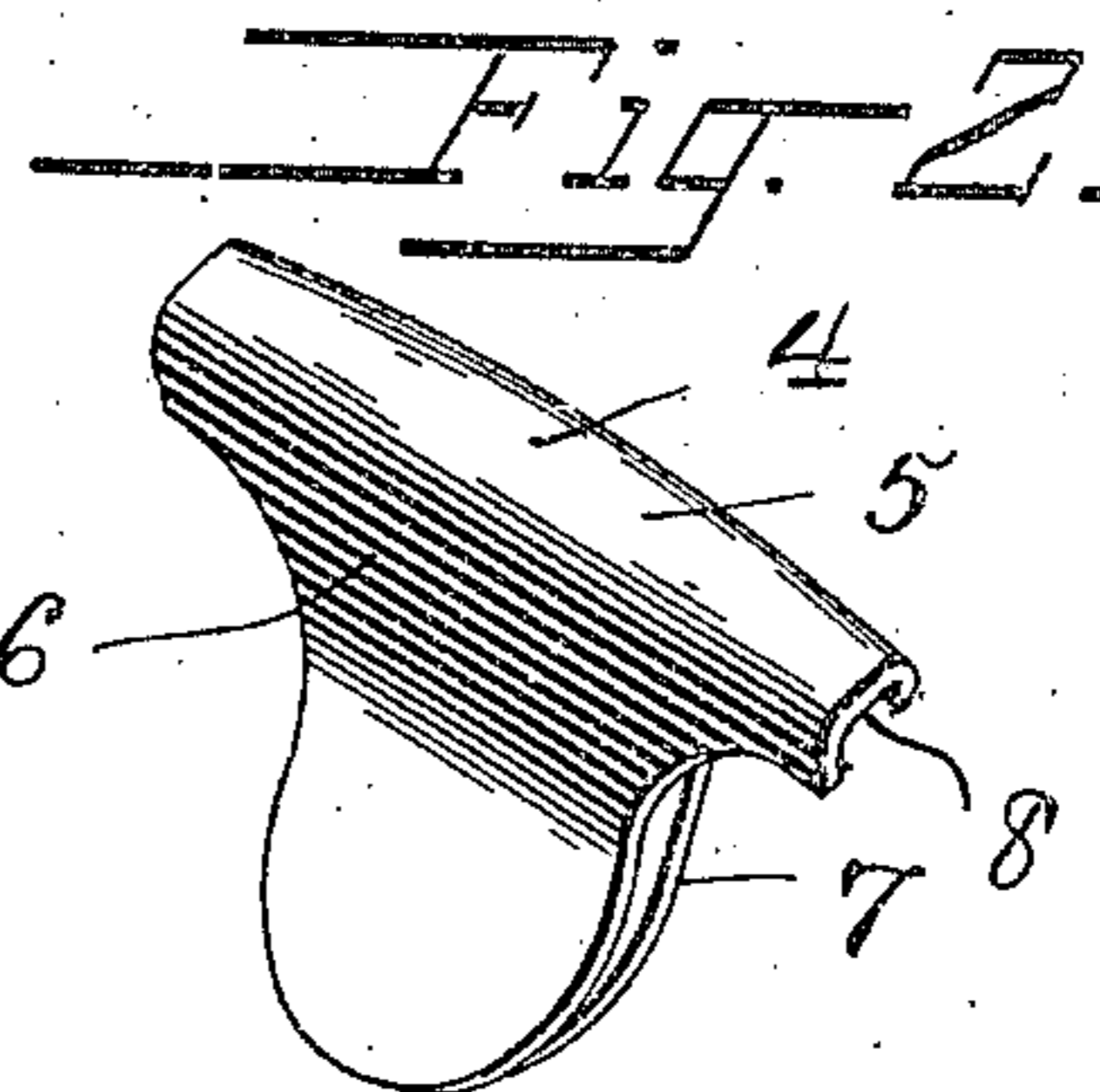
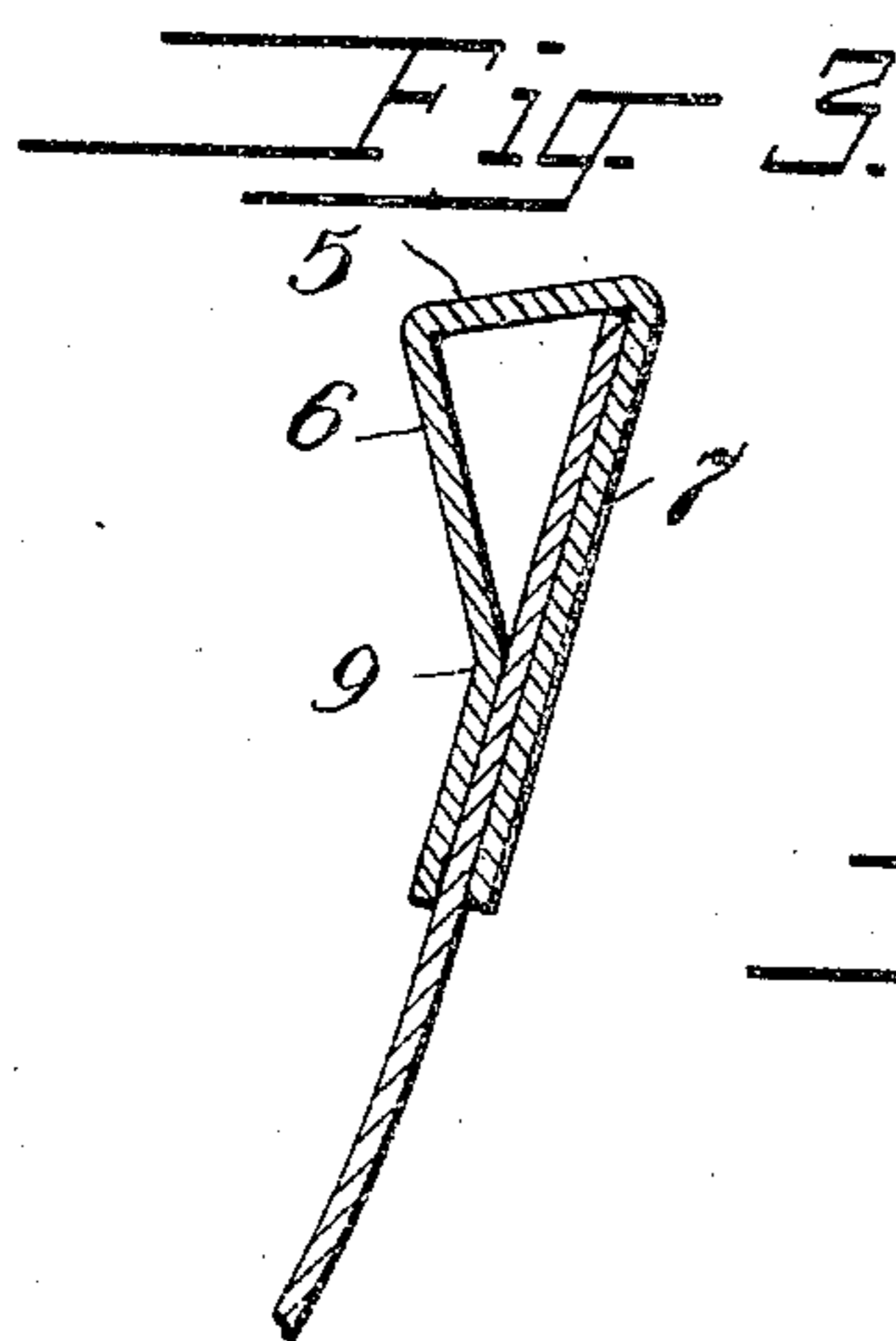
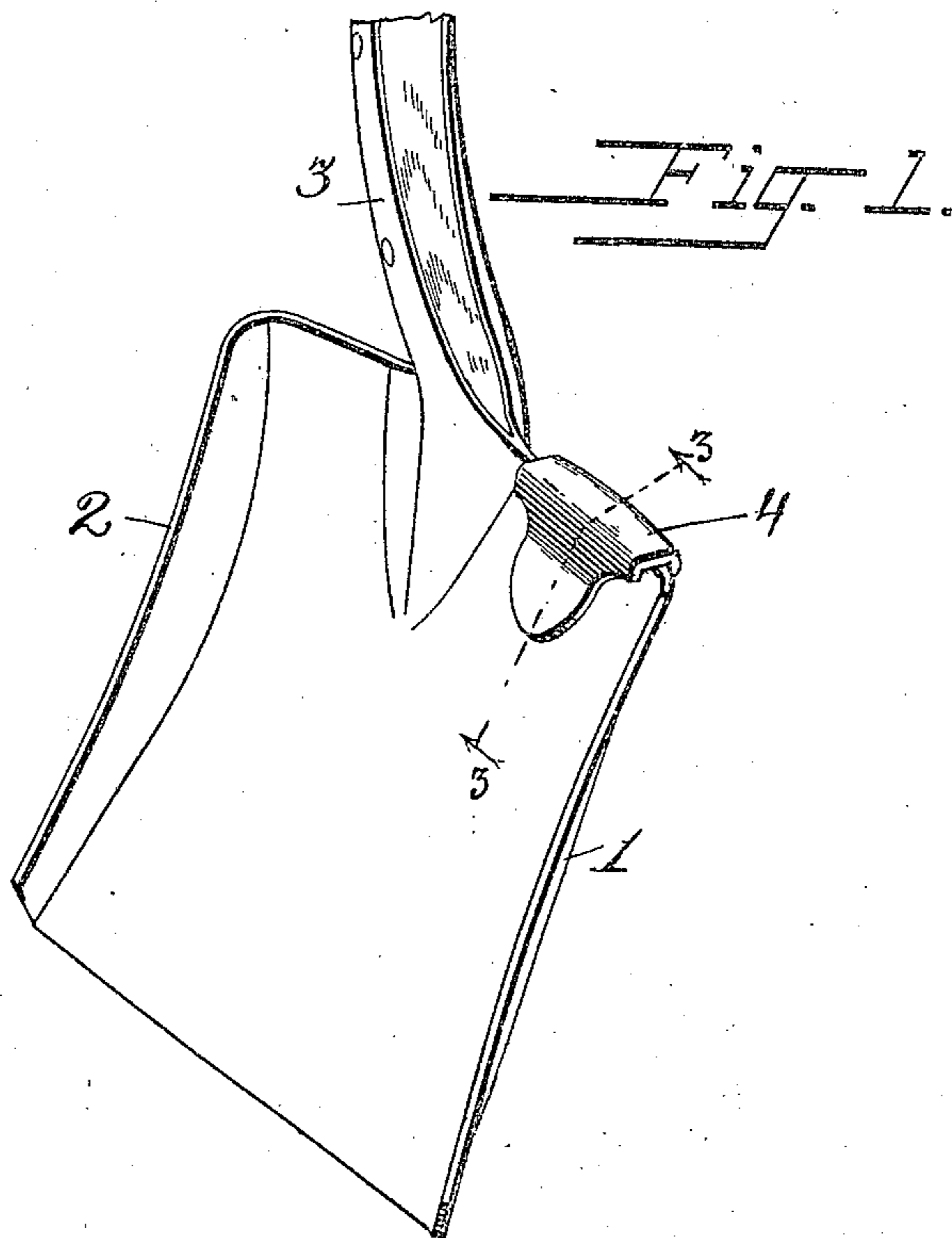


J. A. ROLAND & H. M. WESTERBERG.
SHOE PROTECTOR FOR SHOVELS.
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952,140.

Patented Mar. 15, 1910.



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UNITED STATES PATENT OFFICE.

JOHN A. ROLAND AND HUGH M. WESTERBERG, OF SIOUX CITY, IOWA.

SHOE-PROTECTOR FOR SHOVELS.

952,140.

Specification of Letters Patent. Patented Mar. 15, 1910.

Application filed October 26, 1907. Serial No. 399,306.

To all whom it may concern:

Be it known that we, JOHN A. ROLAND and HUGH M. WESTERBERG, citizens of the United States, residing at Sioux City, in the county of Woodbury and State of Iowa, have invented certain new and useful Improvements in Shoe-Protectors for Shovels, of which the following is a specification.

This invention relates to improvements in shoe protectors for shovels, and is more especially adapted for that type of shovel which is used in railroad track work.

The object of the invention is to provide a single piece spring metal protector of clip-form which is of such shape or configuration that it readily adapts itself to shovels varying considerably in form and possesses in itself a gripping tension ample to hold it reliably in place.

Another object of the invention is to provide a construction which is symmetrical and equally well adapted for either the left or the right hand side of the shovel blade so that it may be used by both right-handed and left-handed workmen.

In the drawings—Figure 1 is a perspective view of the shovel showing one of our improved protectors in place thereon, part of the handle of the shovel being broken away to reduce the size of the drawings; Fig. 2 is a perspective view of our device; Fig. 3 is a vertical sectional view taken through lines 3—3 of Fig. 1; Fig. 4 is an end or edge elevation of the device.

Referring to the drawings, 1 designates as a whole an ordinary railroad shovel comprising the usual shovel blade 2 and handle 3. Ordinarily, and as shown in the drawings, the upper edges of the blade which form the shoulders to which the workman applies his foot in forcing the shovel into the earth are made of practically the same thickness as the main parts of the blade and are therefore comparatively thin and sharp, and tend to cut and rapidly wear the sole of the shoe.

Numerous shoe protectors, having the same general purpose as that of the present invention, have been devised, but so far as we known a device embodying the characteristics of the present invention is new.

Describing the device, 4 designates the same as a whole, and it consists of a single piece struck out by means of suitable dies, formed of spring metal and shaped to clasp

itself upon the upper edge of the shovel blade at either side. The main body portion 5 which rests upon the upper edge of the shovel blade may be described generally as of inverted trough-shape; the upper surface being approximately flat, as seen clearly in Figs. 3 and 4, curved slightly in the direction of its length, and at its lower edges merging into a pair of integral ears or clips 6 and 7. The back clip 7 is constructed to lie flatwise against the back of the shovel blade throughout its full length, as seen clearly in Fig. 3, while the front clip 6 extends from the front edge of the top portion 5 downwardly approximately at right angles to said top surface and then takes an oblique bend so that the lower portion of the clip stands at a slight angle to the back clip, as seen in Fig. 4. This angle is such that when the clip is forced onto the blade of the shovel the lower portion of the front clip from the angle 9 downwardly fits flatwise against the front side of the blade; it being understood that the bending of the spring metal will be distributed throughout the length of the front clip and the overhanging portion of the body in such manner as to bring about this result. The clip is made of substantial thickness so that it grips the shovel blade with a very considerable tension and is thus held reliably in place. That part of the front clip portion which extends from the angle or bend 9 upwardly to the front edge of the top portion obviously operates as a strut or brace to prevent the clip from being bent by pressure of the foot applied thereto.

It is to be noted that the end portions 8 of the trough-like main body are contracted somewhat as compared with the central part of the device, and accordingly when the device is applied to the curved upper edge of the blade it is held very securely against movement. Inasmuch as the device is symmetrical in its construction as regards its opposite edges or ends, it will be obvious that it is immaterial which side of the blade it is applied to.

It is to be noted that the top surface 5 bears such angular relation to the back member 7 that when the shovel is held in ordinary spading position the surface 5 will be approximately level for the operator's foot, and the relatively broad surface thus presented prevents the device from cutting

or seriously wearing the shoe, and enables the workman to perform his work comfortably.

In view of the fact that the device retains
5 itself in position entirely by its own spring
tension, it is obvious that it may be instantly
applied to any ordinary shovel, and may be
with equal facility removed, either to be
transferred to another shovel or to be shifted
10 to the other side of the same shovel.

We claim as our invention:

1. A device of the character described,
consisting of an inverted trough like main
body and spring jaw extensions of less
15 width than the length of the main body
and formed integrally with, and as an ex-
tension of, the front and rear sides, respec-
tively, of said main body, the rear one of
said extensions extending downwardly in
20 the same plane throughout its length, and
the forward one of said extensions converg-
ing inwardly toward the other extension
throughout a substantial portion of its
length and then converging outwardly

throughout another substantial portion of 25
its length so as to extend closely along side
of the rear extension at its free end.

2. The herein described shoe protector
consisting of an inverted trough like main
body curved laterally throughout its length 30
and narrower at each end than throughout
its central portion, the face of said main
body being inclined downwardly from the
upper edge of the shovel when in position
upon the latter, centrally and symmetrically 35
disposed spring jaw extensions of the front
and rear sides thereof and shaped to nor-
mally stand in close proximity or contact to
each other throughout substantial portions
of their free end so as to hold the device 40
firmly in place upon the shovel blade by the
clamping action of the spring jaws.

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