

No. 894,511.

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F. M. LINDERMAN.

BELT FASTENER.

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Fig. 1.

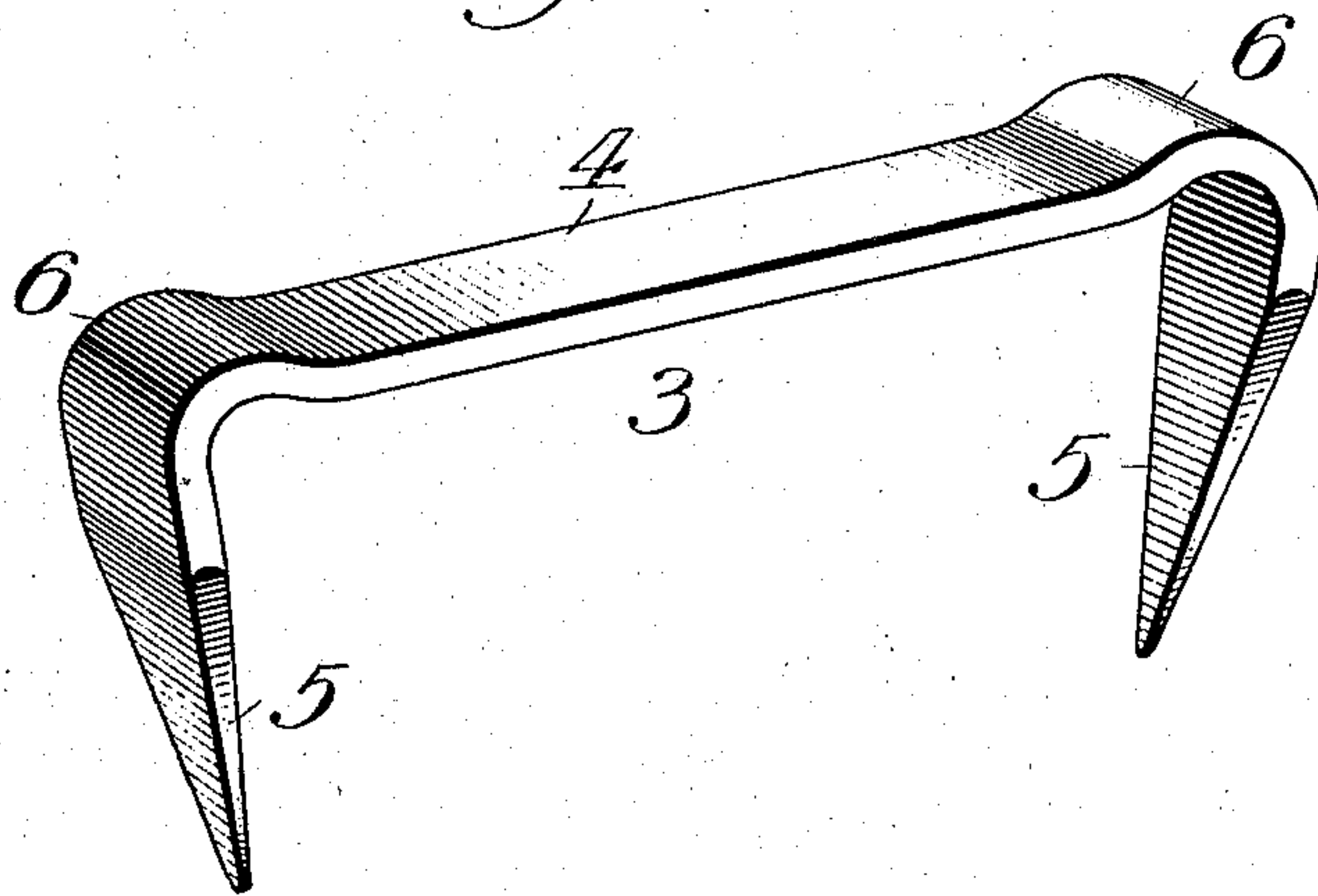
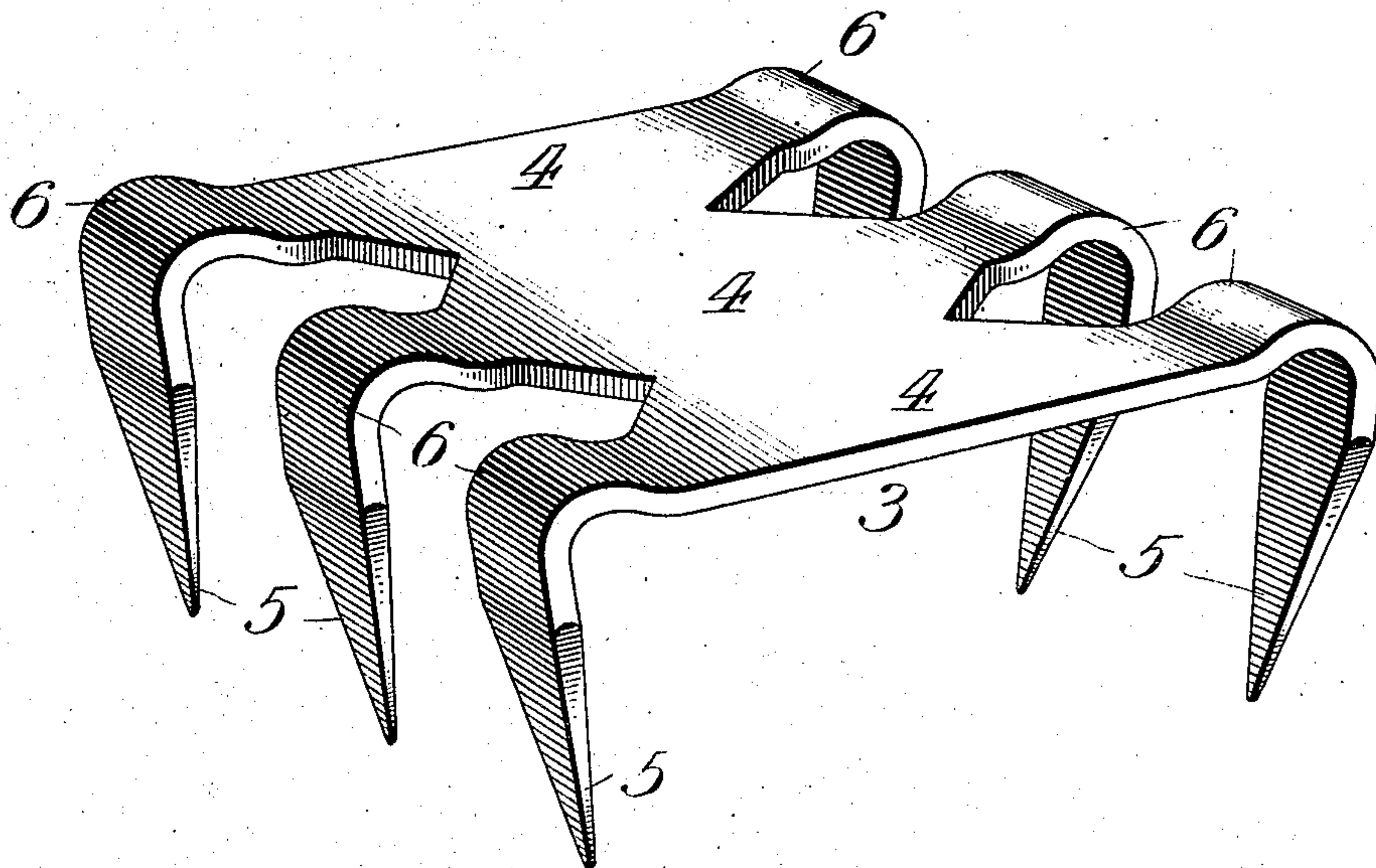


Fig. 2.



Witnesses:
John Enders.
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FRANK M. LINDERMAN, OF CHICAGO, ILLINOIS.

BELT-FASTENER.

No. 894,511.

Specification of Letters Patent.

Patented July 28, 1908.

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To all whom it may concern:

Be it known that I, FRANK M. LINDERMAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Belt-Fasteners, of which the following is a specification.

My invention relates to an improvement in the class of metal fasteners, or "hooks" as they are also called, used for joining the ends of strap-material for forming machinery-belts. A common form of such a fastener consists of a cross-head having similar sharp prongs, or points, projecting from its ends to penetrate the material of the ends to be joined, and which are turned over and clenched into the inner surface of the belt, or that which contacts with the pulleys, to be flush therewith, thus without protruding, to render it smooth. Sometimes these hooks are provided in united series to adapt a plurality to be driven into the material at one operation; such form of the device affording what is known in the art as "belt-lacing". The objection to this form of the fastener, whether single or multiple, is that in driving it to penetrate the material with the points by hammering against the aforesaid head, the points tend to spread apart with the effect of separating the ends of the material to be joined so that the matter of bringing these ends into proper abutting relation by bending the protruding points toward each other is attended with great difficulty, the effort generally terminating in an imperfect result. This difficulty is attributable to the bending of the head under the blows of driving, whereby the points are forced outwardly.

My improvement entirely overcomes the objection referred to by the construction illustrated in the accompanying drawing, in which—

Figure 1 is a perspective view of the single form of my fastener exaggerated in the matter of dimensions, and Fig. 2, a similar view of the multiple form of the same consisting of a plurality of fastener-members composing an integral structure.

The fastener 3, whether in the single or multiple form shown, comprises, as usual, a

head 4 and prongs 5, 5 extending from it, either, like those shown, tapering to a point or of other sharp-pointed form. The essential feature of improvement consists in the depression of the head to extend in a plane below that of the shoulders 6 which join the points to the head and which are preferably, though not necessarily, of the rounded shape represented. By thus depressing the head it lies beneath the impact of a hammer used for driving the fastener, the blows of which can only be applied to the higher shoulders 6, thereby driving the points, as it were, independently of each other, even though the hammer strikes them simultaneously, as directly as a nail is driven by impact against its head, and of necessity without bending the head 4, so that the described tendency to spreading apart of the points, as the effect of said bending, is avoided. With the points fully driven through the material, they are bent toward each other and clenched into the adjacent surface of the belt-material. This operation is commonly performed by laying the jointed sections in position to cause the points to project upwardly, when they are bent toward each other and pounded or pressed down against and into the surface of the material to extend flush therewith. In this operation, with my improved construction of the fastener, the shoulders 6 become reduced by depression to occupy the same plane as the head 4, and the resultant straightening or flattening of the shoulders lengthens accordingly the prongs 5, whereby in bending they hug the end-portions of the belt-material closer and closer at the bends and thus tend to tighten the abutment between the joint-forming ends. This last described function of my improved construction thus adds to it the advantage of strengthening the joint in the belt.

What I claim as new and desire to secure by Letters Patent is—

1. A belt-fastener comprising a head extending in a plane and provided at its ends with driving shoulders, and points projecting from the shoulders, the plane of the head being below the shoulders.

2. A belt-fastener comprising a head extending in a plane and provided at its ends

with rounded driving shoulders, and points projecting from the shoulders, the plane of the head being below the shoulders.

3. A belt-fastener consisting of a plurality
5 of fasteners forming an integral structure,
each member comprising a head extending
in a plane and provided at its ends with

driving shoulders, and points projecting from the shoulders, the plane of the head being below the shoulders.

FRANK M. LINDERMAN.

In presence of—

RALPH SCHAEFER

W. F. JONES.