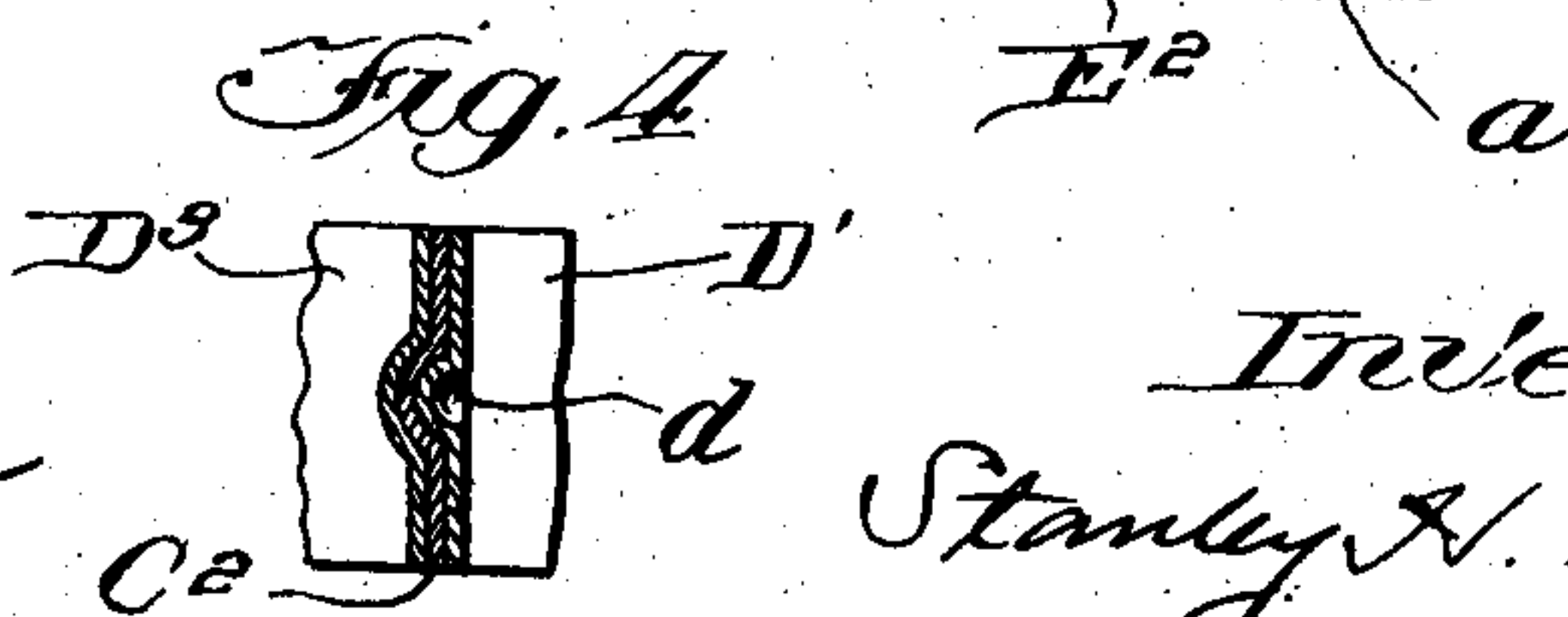
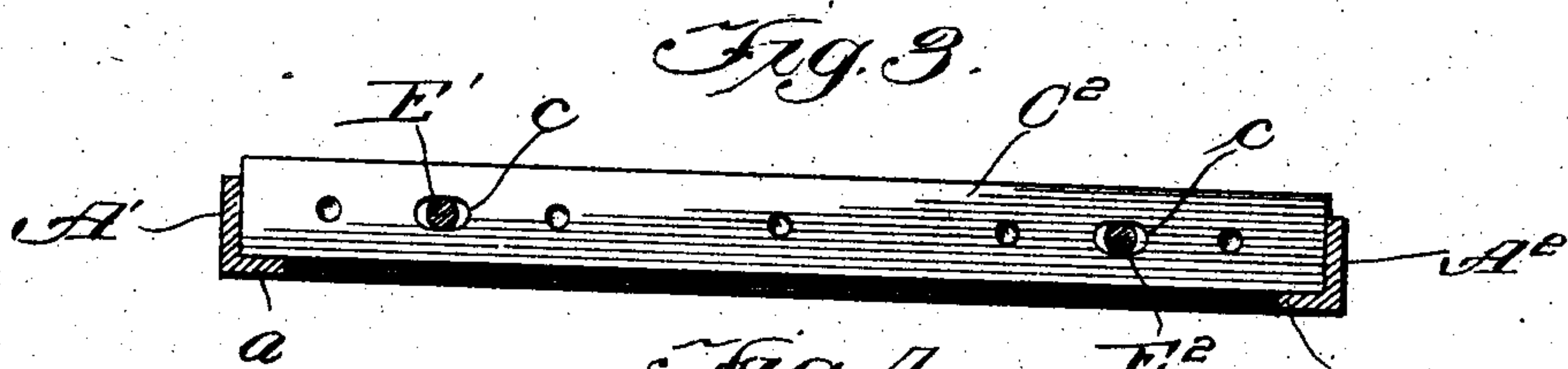
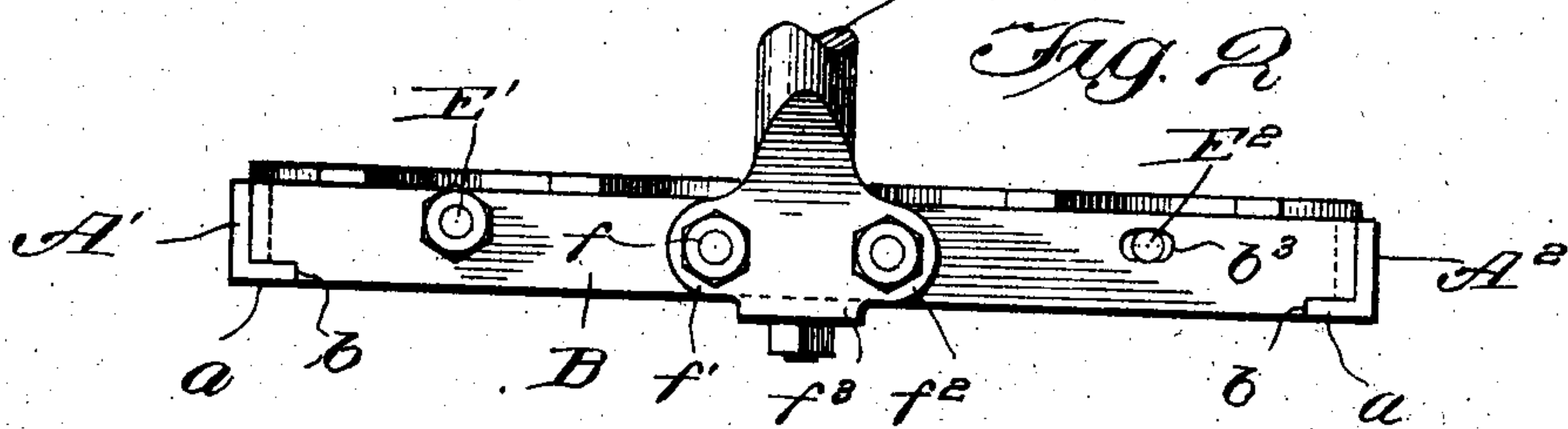
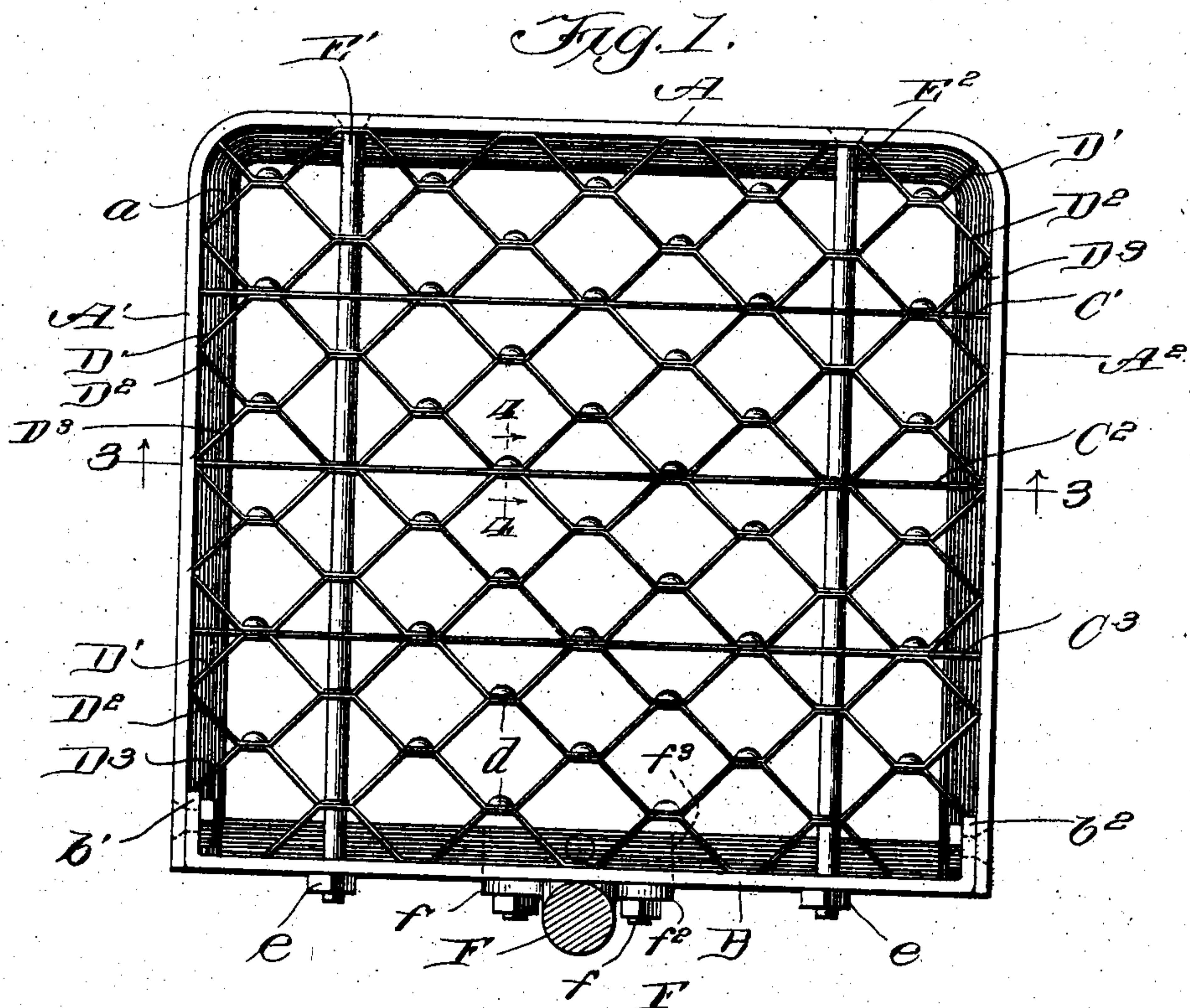


No. 835,004.

PATENTED NOV. 6, 1906.

S. H. WILSON.
VEHICLE STEP.

APPLICATION FILED FEB. 13, 1905.



Witnesses:

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VEHICLE-STEP.

No. 835,004.

Specification of Letters Patent.

Patented Nov. 6, 1906.

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To all whom it may concern:

Be it known that I, STANLEY H. WILSON, a citizen of the United States, residing at Chicago Heights, county of Cook, State of Illinois, have invented a certain new and useful Improvement in Vehicle-Steps; and I 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 pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates in general to vehicle-steps, and more particularly to steps having reticulated metallic treads.

Steps of the type covered by United States Letters Patent Nos. 382,331, 385,017, 392,891, and 476,323, granted to F. H. Stanwood, have proved in practice to be extremely efficient as they serve as foot-scrapers and prevent any slipping of the foot upon them, so that persons getting on and off the vehicles incur no danger of falling.

The primary object of my invention is to provide an improved step for vehicles, ladders, &c., of the Stanwood type and one particularly adapted for automobiles, the parts of which may be readily assembled and in which the tread projects above the surrounding supporting-frame and rests upon a flange projecting inwardly from the supporting-frame.

A further object of my invention is to provide a step-tread which will afford a sure footing and which at the same time will be simple in construction and inexpensive in manufacture.

The embodiment of my invention herein disclosed may be generally described as consisting in a supporting-frame surrounding the tread and having an inwardly-projecting flange upon which the tread rests, a tread composed of bent metal strips and straight strengthening-strips arranged on edge and projecting above the top of the surrounding supporting-frame, and transverse tie-rods passing through holes in the bent strips and elongated slots in the straight strips, the ends of the tie-rods being supported in the surrounding frame.

My invention will be more fully described hereinafter with reference to the accompanying drawings, in which the same is illustrated

as embodied in a convenient and practical form, and in which—

Figure 1 is a plan view; Fig. 2, an elevational view looking from the bottom of Fig. 1; Fig. 3, a sectional view on line 3 3 in Fig. 1; and Fig. 4, an enlarged detail view on line 4 4, Fig. 1.

The same reference characters are used to indicate the same parts in the several figures of the drawings.

A indicates a supporting-frame angular in cross-section, which surrounds the tread portion of the step. The front and side portions A' and A² of the frame are preferably formed integral, while the rear section B is detachably secured to the adjacent ends of the side sections.

Any suitable means may be provided for securing the ends of the rear section. Preferably, however, lugs b' and b² project inwardly from the ends of the rear section and overlap the vertical flange at the ends of the side sections. Fastening devices—such, for instance, as bolts—pass through registering holes in said lugs and flanges on the side sections. The inwardly-projecting flange of the rear section B is cut away at its ends to receive the inwardly-projecting flanges a a on the ends of the side sections.

The tread portion of the step is composed of a series of bent metallic strips and a series of straight strengthening-strips. The bent strips are shown as arranged in series of three D', D², and D³, interposed between the front section of the frame and the adjacent strengthening-strip C', and similar series of three bent strips between the strengthening-strips C' C² C³ and the rear section B of the frame. The strips composing the tread are arranged on edge and project above the vertical flange of the surrounding frame. The inwardly-projecting flange of the surrounding frame underlies the edges of the tread and supports the same. The contacting portions of the bent strips are united by registering bosses d, while similar registering bosses also unite the portions of the bent strips through the interposed strengthening-strips, as clearly shown in Fig. 4.

In order that the step may have sufficient strength and rigidity, tie-rods E' and E² are employed, which extend through holes in the vertical flange of the front section of the sup-

porting-frame and also through holes in the strips composing the tread portion of the step. The rear ends of such tie-rods are screw-threaded and extend through elongated slots b^3 in the vertical flange of the rear section B and are provided with nuts e .

In order to facilitate the securing of the tread portion to the supporting-frame, the strengthening-strips are provided with elongated slots c , through which the rods E' and E^2 pass. Such elongated slots permit the tie-rods to be placed through the tread without the necessity of accurately alining the holes through the strengthening-strips of the tread. The elongated slots b^3 in the rear section B of the frame also permit the ends of the tie-rods to be readily engaged with such section.

Any suitable means may be provided for securing the step to the vehicle or other object in connection with which the step is used. For convenience I have shown a bracket F, provided with laterally-projecting ears f' f^2 , which lie adjacent to the vertical flange of the rear section of the frame and an inwardly-projecting ear f^3 , which underlies the horizontal flange of the rear section. Suitable fastening devices—such, for instance, as bolts—are provided for securing the ears on the bracket F to the frame of the step.

From the foregoing description it will be observed that I have invented an improved step adapted for various uses, but particularly designed for use as an automobile-step, which is so constructed as to permit the ready assembling of the parts thereof and which is rendered perfectly safe in use by reason of the upper surface of the tread projecting above the surrounding supporting-frame. It is obvious, however, that the vertical flange of the supporting-frame may be extended flush with the upper surface of the tread without rendering the use of the step unsafe by reason of danger of slipping. The vertical flange of the supporting-frame is comparatively thin and has a vertical inner surface adjacent the vertical edge of the tread, so that the upper edge of the flange affords a secure support for the foot.

While I have described more or less precisely the details of construction, I do not wish to be understood as limiting myself thereto, as I contemplate changes in form, the proportion of parts, and the substitution of equivalents, as circumstances may suggest

or render expedient, without departing from the spirit of my invention.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a step of the character described, the combination with a tread composed of metallic strips set on edge, of a rectangular supporting-frame composed of integral front and side sections and a detachable rear section, said frame having a horizontal flange extending under and supporting the edges of the tread, and a vertical flange terminating below the upper surface of said tread, and lugs on the ends of said detachable rear section of the frame lying within and secured to the adjacent vertical flanges of the side section, the ends of the horizontal flange of said rear section being cut away to receive the horizontal flanges on said side sections.

2. In a step of the character described, the combination with a tread composed of bent metallic strips and straight strengthening-strips set on edge, of a rectangular supporting-frame composed of integral front and side sections and detachable rear section, said frame having a horizontal flange extending under the edges of said tread, and a vertical flange terminating below the upper surface of said tread, lugs on the ends of the detachable rear section lying within and secured to the adjacent flanges of the side sections, the ends of the horizontal flange of said rear section being cut away to receive the horizontal flange on said side sections, and transverse tie-rods extending through holes in said bent strips and through elongated slots in said strengthening-strips, the ends of said rods being supported in the vertical flanges of the front and rear sections of said frame.

3. In a step of the class described, the combination with a tread composed of a plurality of metallic strips set on edge, of a rectangular supporting-frame for the tread surrounding the same and composed of integral front and side sections and a detachable rear section; and transverse tie-rods connecting the metallic strips of the tread with the supporting-frame.

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

STANLEY H. WILSON.

Witnesses:

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JAMES M. WHELAN.