

L. M. NORTON.

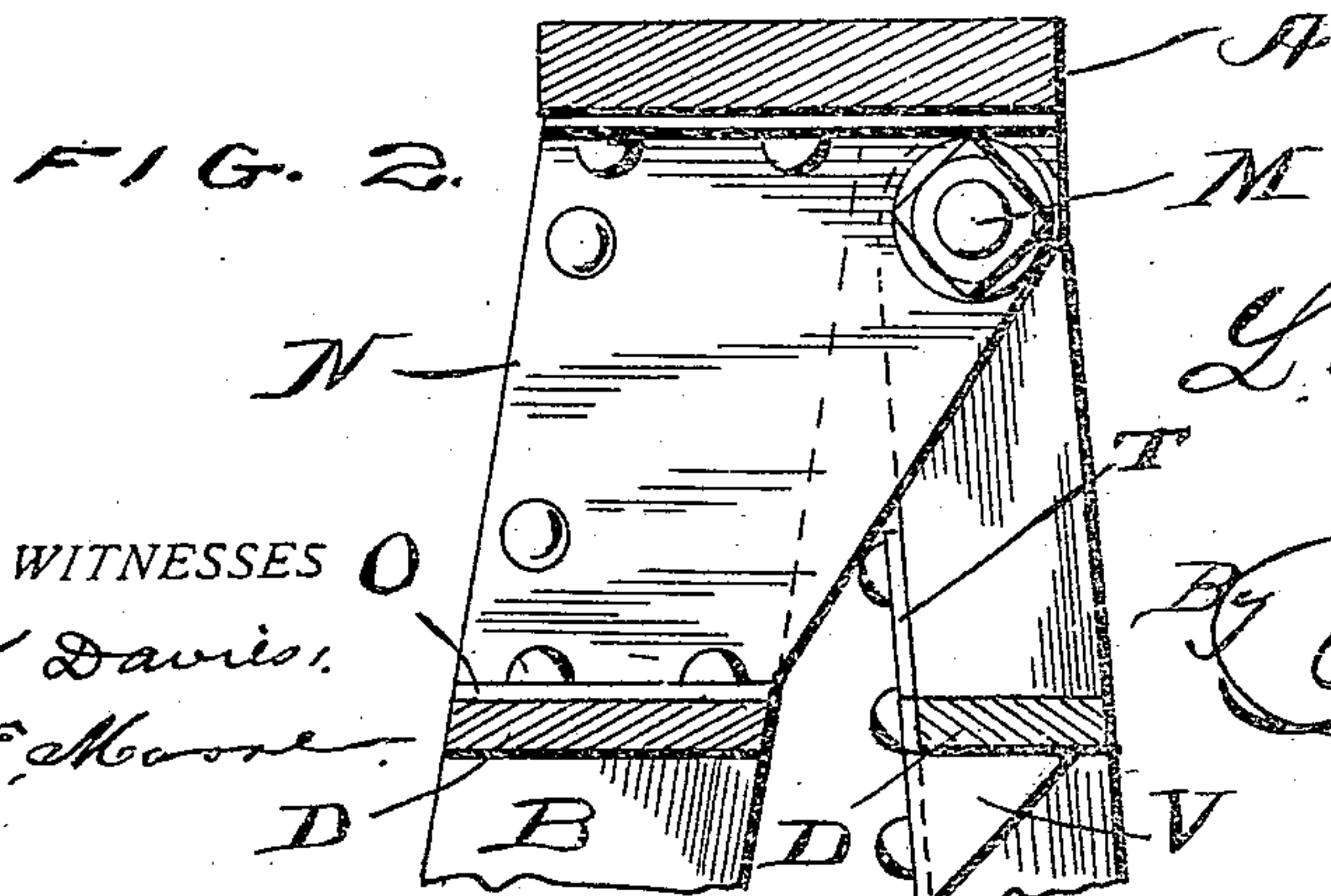
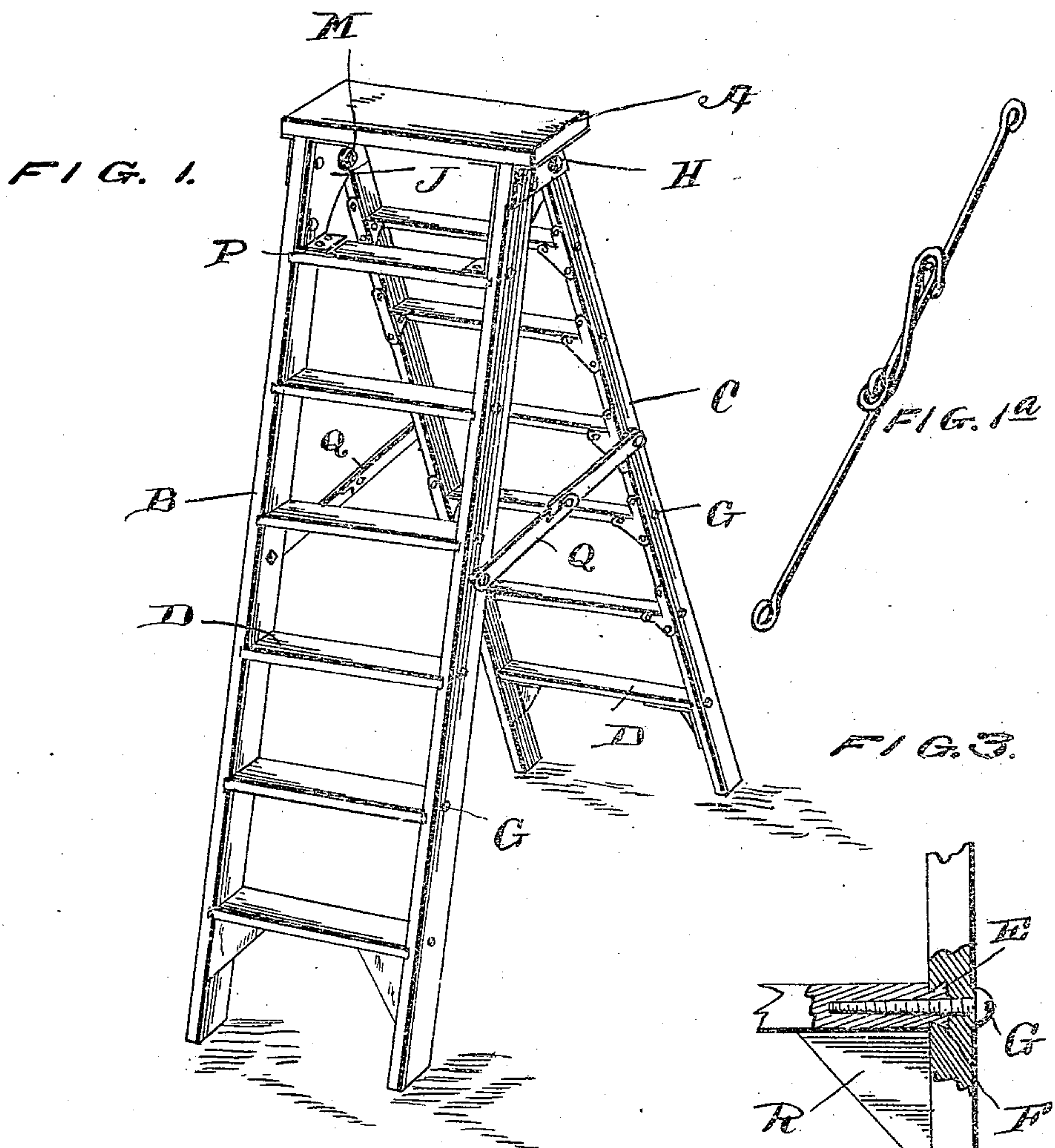
LADDER.

APPLICATION FILED MAY 17, 1909.

951,092.

Patented Mar. 1, 1910.

2 SHEETS—SHEET 1.



WITNESSES
C. H. Davis.
M. E. Moore.

L. M. Norton.

INVENTOR

By *[Signature]*
Attorney

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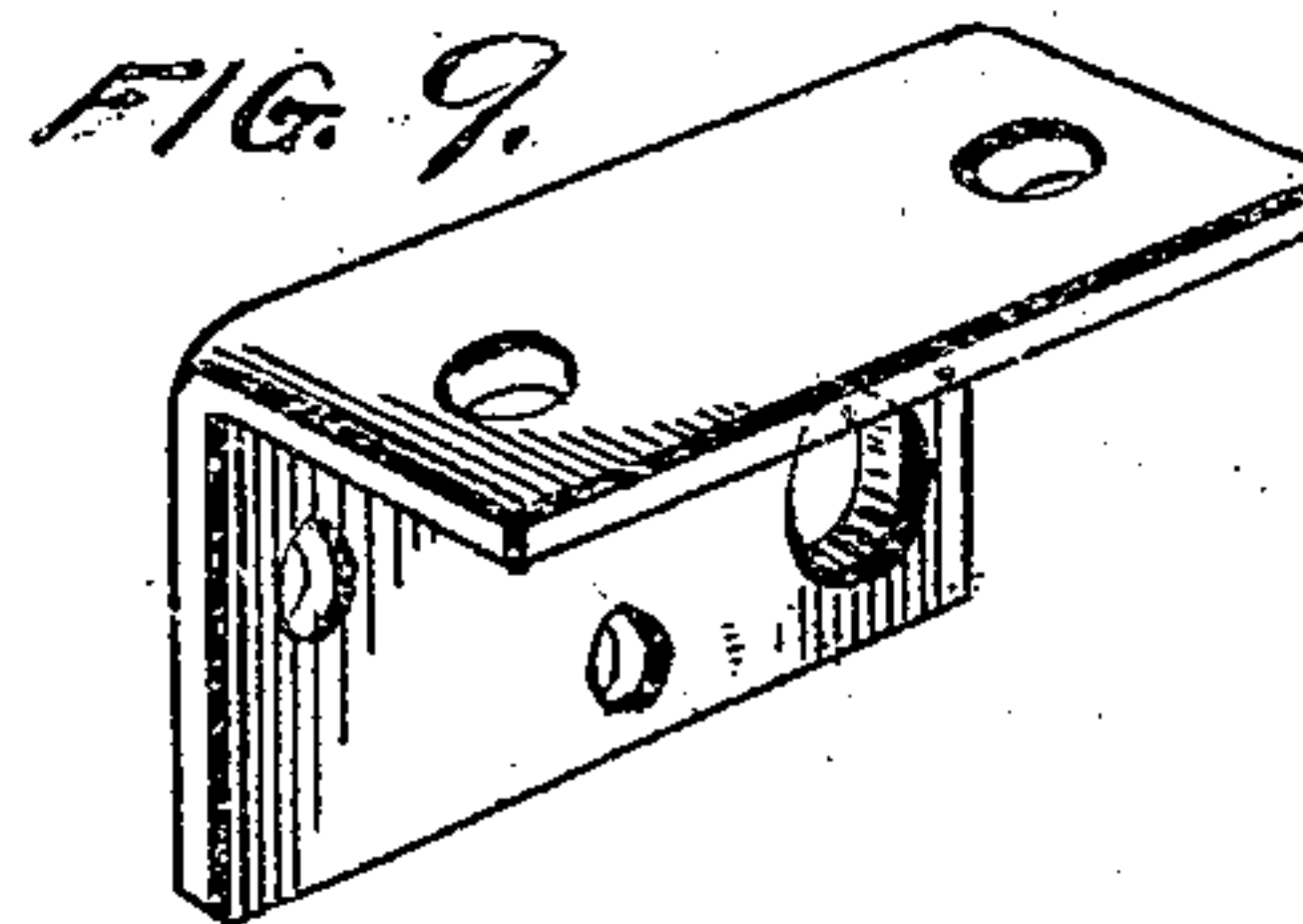
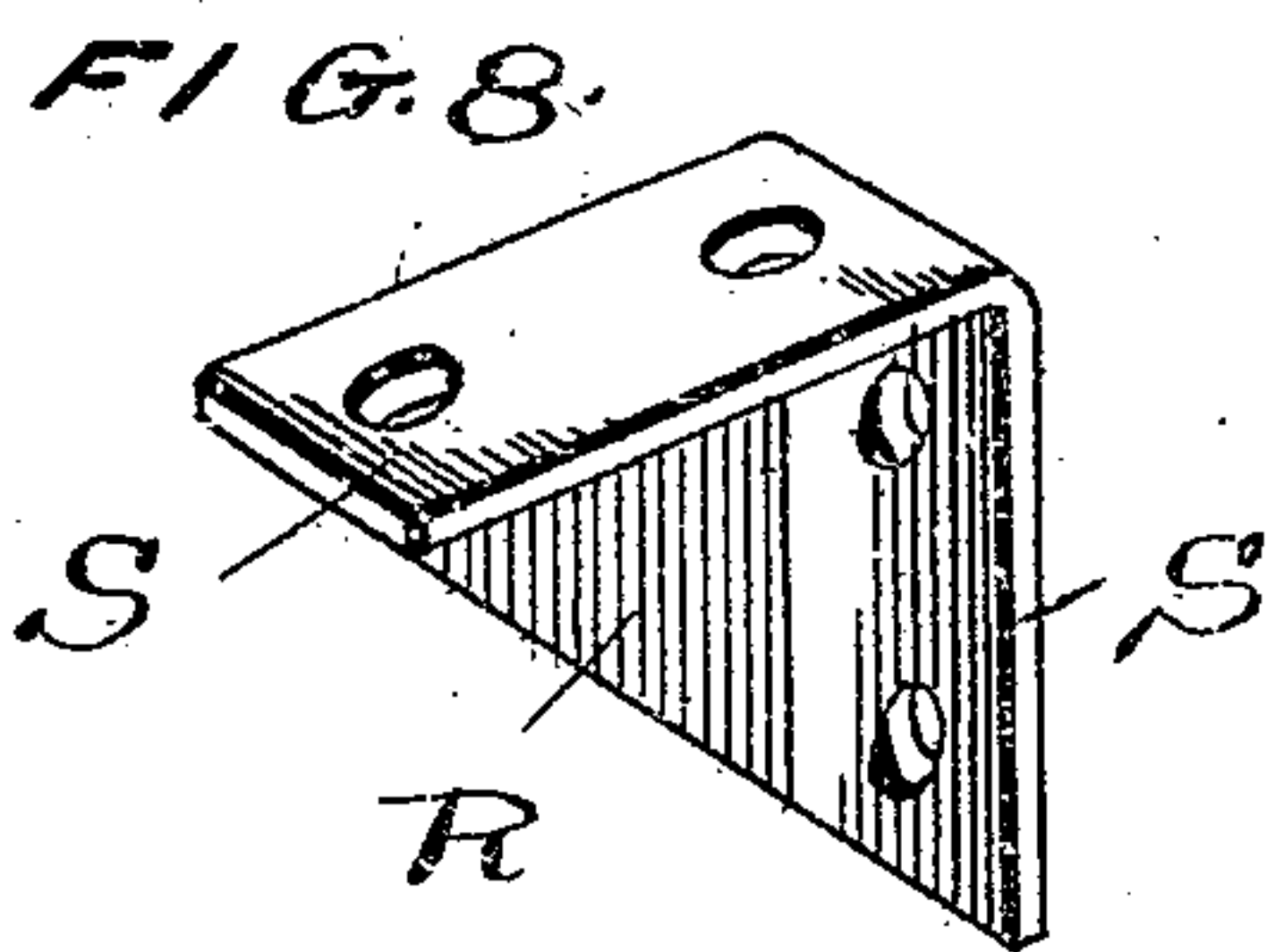
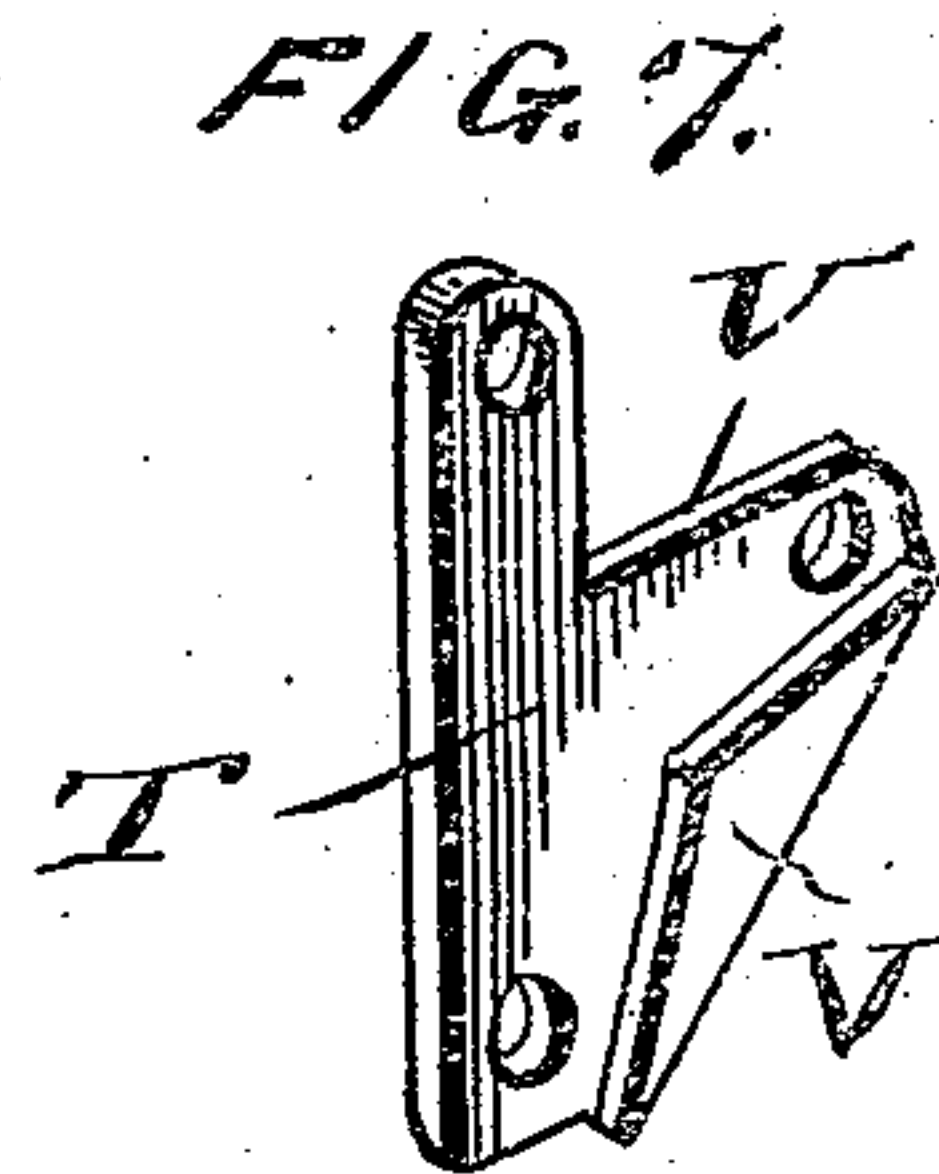
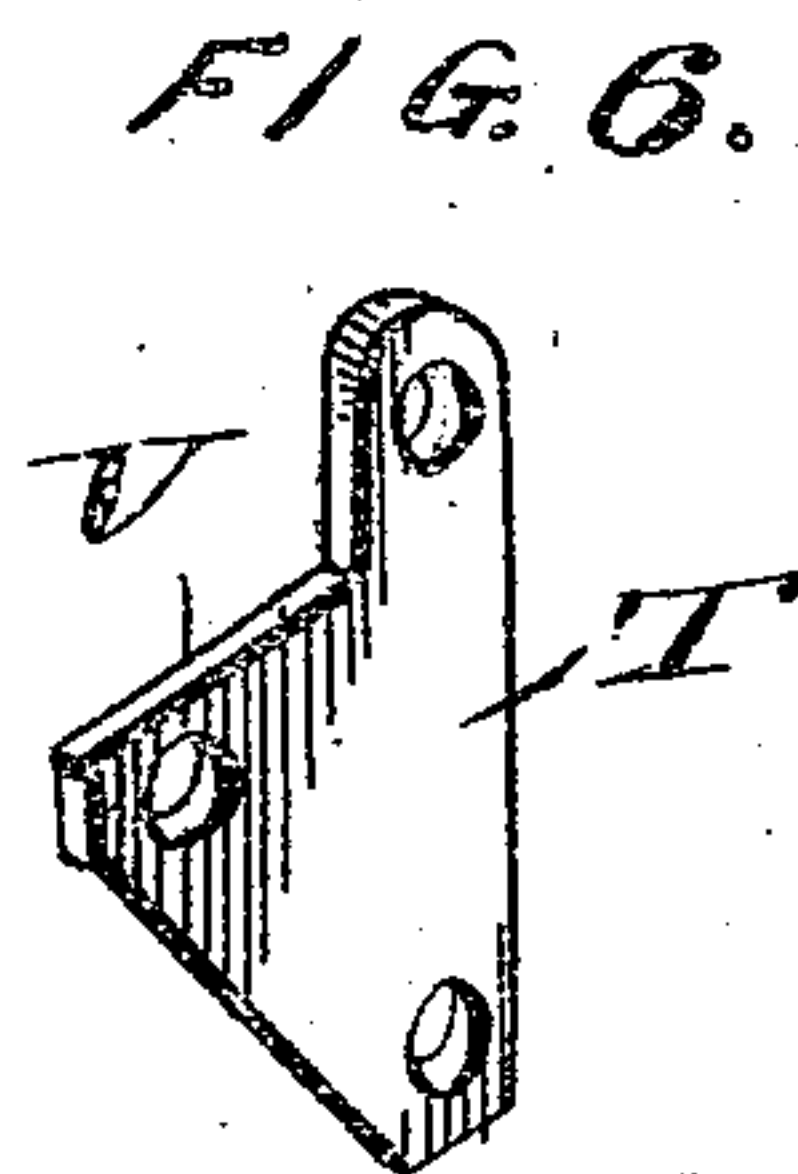
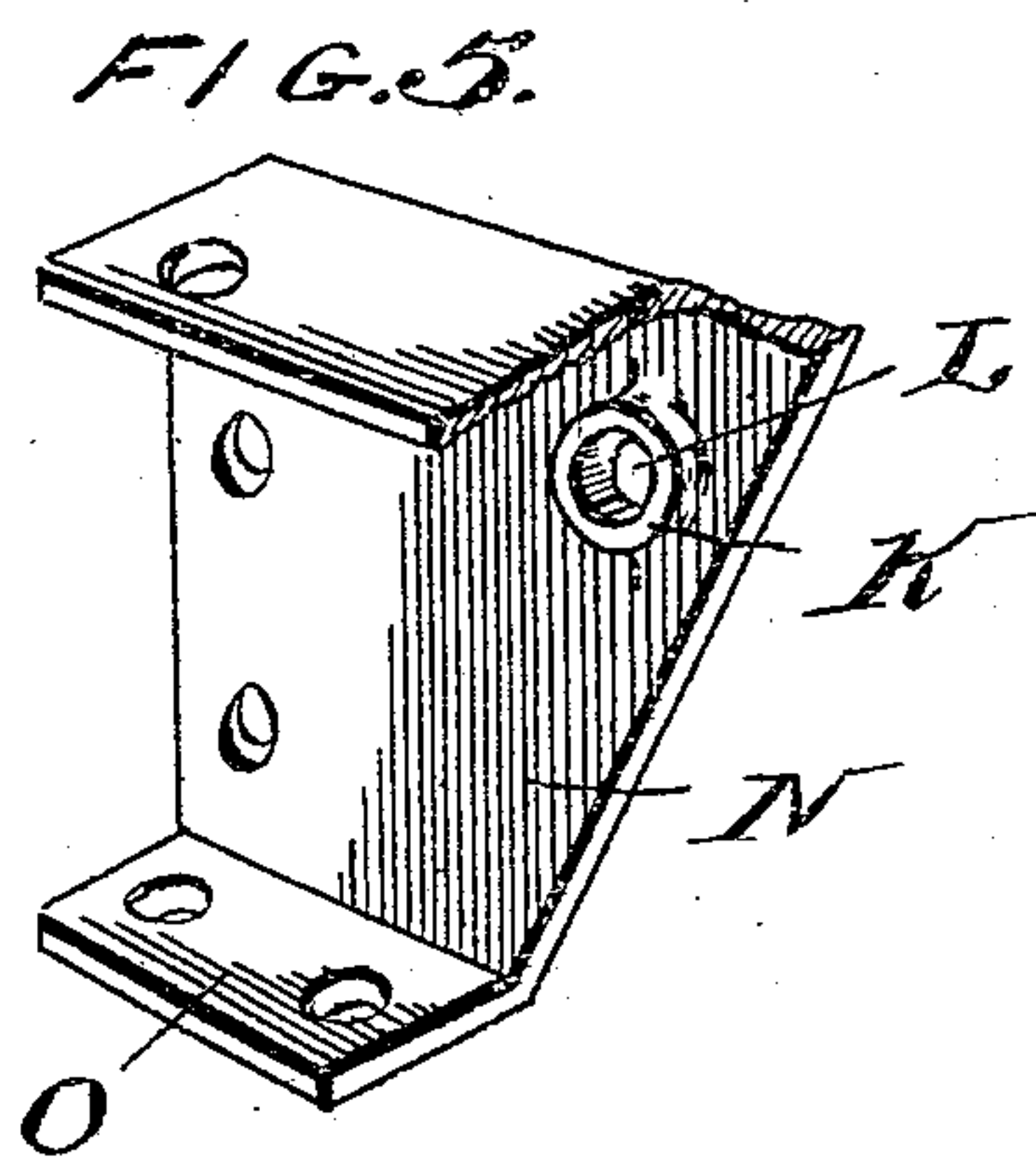
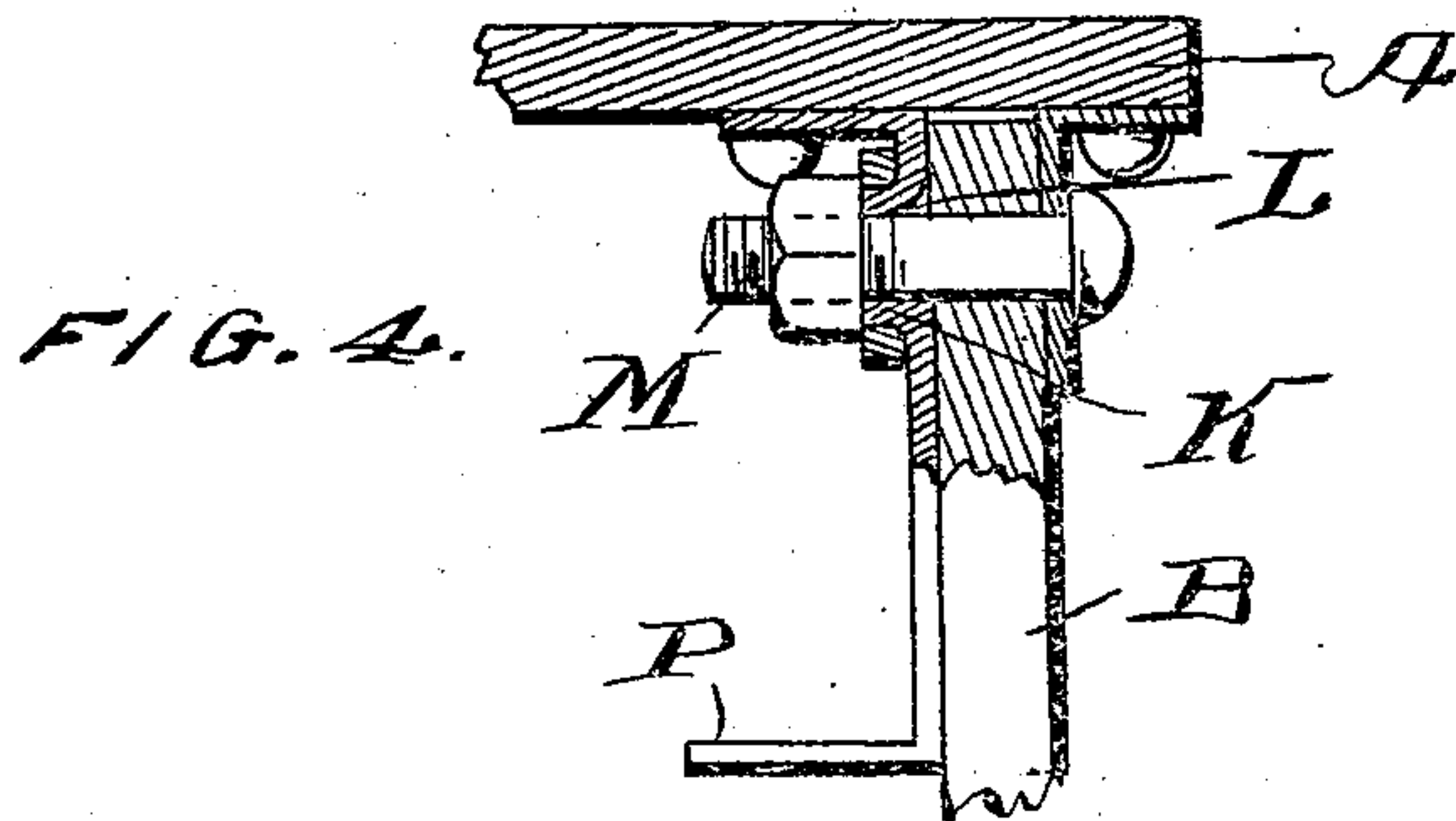
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2 SHEETS—SHEET 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

LEONARD MARSHALL NORTON, OF NORTHAMPTON, MASSACHUSETTS, ASSIGNOR OF
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LADDER.

951,092.

Specification of Letters Patent.

Patented Mar. 1, 1910.

Application filed May 17, 1909. Serial No. 496,501.

To all whom it may concern:

Be it known that I, LEONARD MARSHALL NORTON, a citizen of the United States, residing at Northampton, in the county of Hampshire and State of Massachusetts, have invented certain new and useful Improvements in Ladders, of which the following is a specification.

My invention relates to improvements in ladders, and refers particularly to a novel construction of what are known as step ladders.

One object of my invention is the provision of a ladder in which either of the ladder sections is provided with steps, and which thus permits the use of both sections or sides of the ladder.

Another object of my invention is the provision of a ladder either of which ladder sections may be used and in which the steps will be secured and braced in such a manner as to insure the greatest strength and durability.

Another object of my invention is the provision of a ladder which while being of double capacity and possessing great strength and durability will be comparatively inexpensive of production, thus producing a ladder which will commend itself as desirable, necessary, and practical.

In the attainment of the objects stated, my invention consists of a ladder embodying novel features of construction and combination of parts substantially as disclosed herein.

Figure 1, represents a perspective view of a ladder constructed in accordance with and embodying my invention. Fig. 1^a, is a modified form of connection between the ladder sections. Fig. 2, represents an enlarged detailed sectional view of the upper portion or end of the ladder showing in elevation one of the brackets or plates used on the inner side at the upper end of the ladder. Fig. 3, represents a detailed sectional view showing in elevation one of the braces used at the lower end of the ladder. Figs. 4, 5, 6, 7, 8, and 9, represent detailed views of the brackets or plates used in the construction of my ladder for the purpose of bracing and strengthening the ladder.

Referring by letter to the drawings, in which similar letters of reference denote corresponding parts in the several views: The letter A, designates the top or platform of

my ladder, and B and C, represent respectively the main and supplemental ladder sections, each of said sections being provided with the steps D, having at their ends the beveled tenons E, fitting in the beveled mortises F, in the ladder sections and rigidly secured therein by means of the fastenings G. From this construction it will be seen that I provide two ladder members and that each member is provided with steps, giving the ladder a double capacity, and at their upper ends the sections are pivoted to the outer right-angled plates H, and at their inner ends to the brackets or angle plates J, and that the top or platform A is secured to both the plates or brackets H and J.

The plates or brackets J are of peculiar construction and have the extended portions K, provided with an opening L, to receive the pivot M, and at their lower reduced or narrowed end N, the plates are provided with the inward extending portion O, which is connected to the upper step by fastenings P, as clearly shown in Fig. 1.

The ladder sections are connected by the hinged links Q, arranged on each side, and to brace the steps at all places I use on the lower steps the angle plate R, having the flanges S, connected to the step and sections, and for the intermediate steps I use the plates T, which are connected to the rear of the sections and which have the extension U, connected to the step, and which are provided with the bent portion V, which bears against the under face of the step and forms a brace for each step.

It will thus be seen that I provide a step ladder which possesses great strength and durability, which can be produced at a comparatively low price, and which is thoroughly practical from every point of view.

I claim:

1. In combination with a main section, a plate secured to the upper step thereof, said plate being of angular conformation and extending upward and having an opening formed therein to receive the pivot by which the supplemental section is secured to the main section and the upper portion of the plate being secured to and forming a brace for the top of the ladder.

2. In a device of the character described, the combination with the upper step of one of the ladder sections, of an angular plate secured thereto, said plate extending upward

and being secured to the side of the ladder and terminating in a second angular portion adapted to engage and support the top of the ladder, said plate having a socket formed therein, a supplemental ladder section, and means passing through said section and engaged in the socket in the plate for securing the supplemental section to the main section.

3. In a device of the character described, the combination with the top, of a plate secured to the under side thereof and located interior to the sides, said plate being bent downward to lie along and be secured to the side of the ladder, the lower portion of the plate being bent inwardly and secured to

the top step, said plate having an opening formed therein near its upper portion, and a bolt passed through and secured in said opening for pivotally securing a supplemental section to the main section, the portion of the plate below said opening being cut away to reduce the width of the plate from that of the top to that of the step to which it is secured.

In testimony whereof I affix my signature, in presence of two witnesses.

LEONARD MARSHALL NORTON.

Witnesses:

GEO. A. ELDER,

C. H. LYMAN.