

P. PHIPPS.
RIGID METAL ANGLE PIECE FOR USE IN STRUCTURAL FRAMES, METALLIC
STANDARDS, &c.

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952,016.

Patented Mar. 15, 1910.

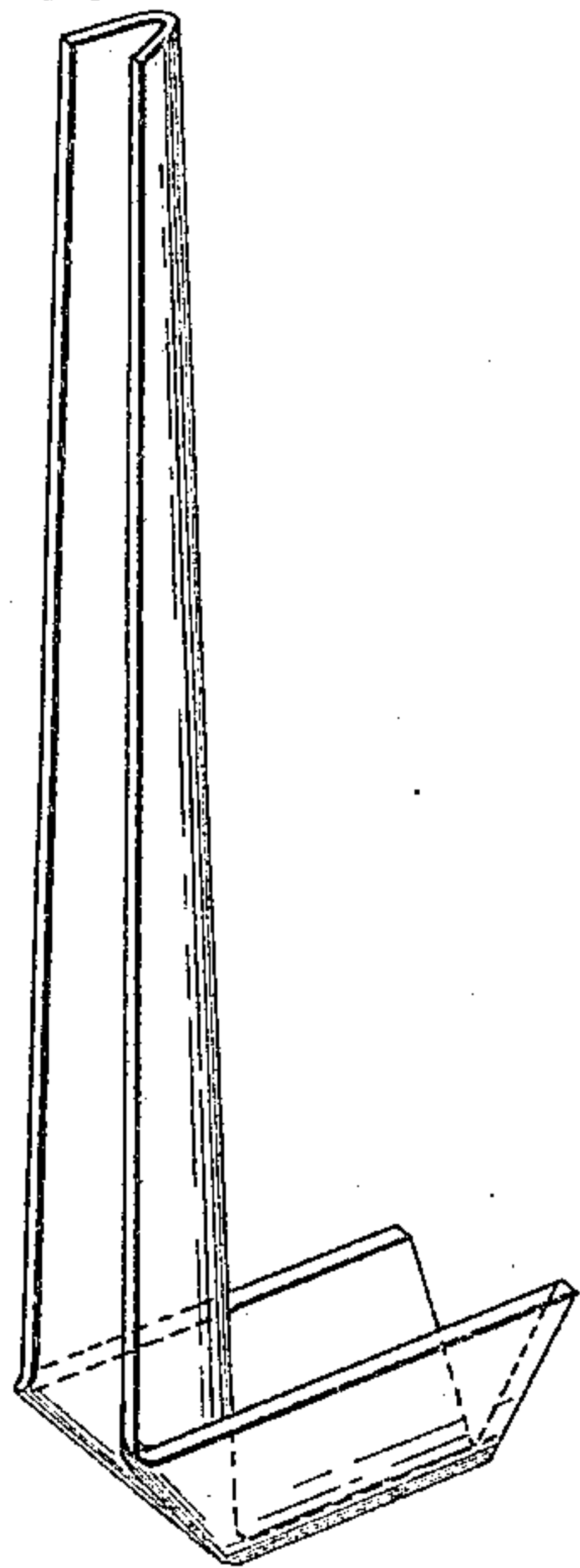


FIG. I

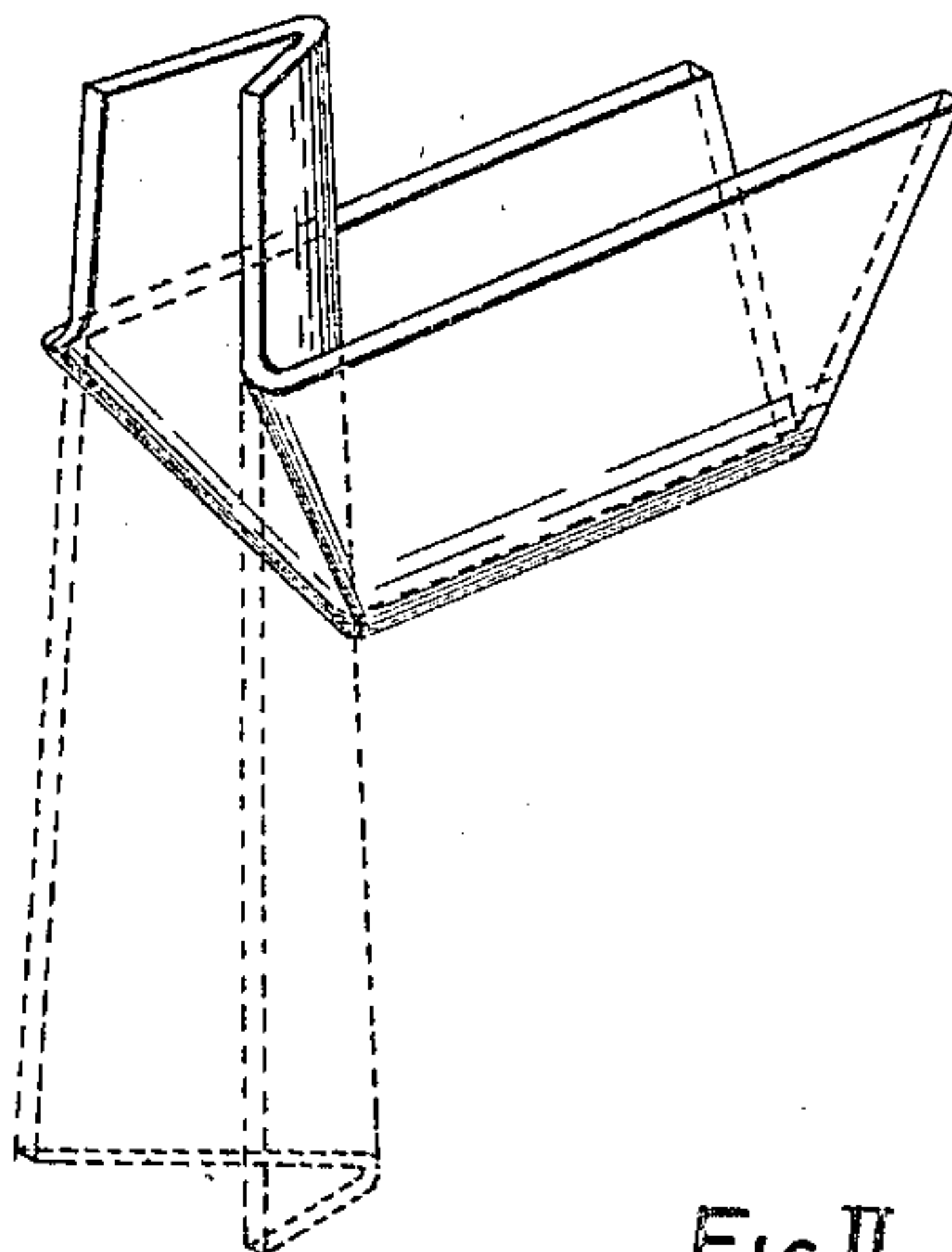


FIG. II

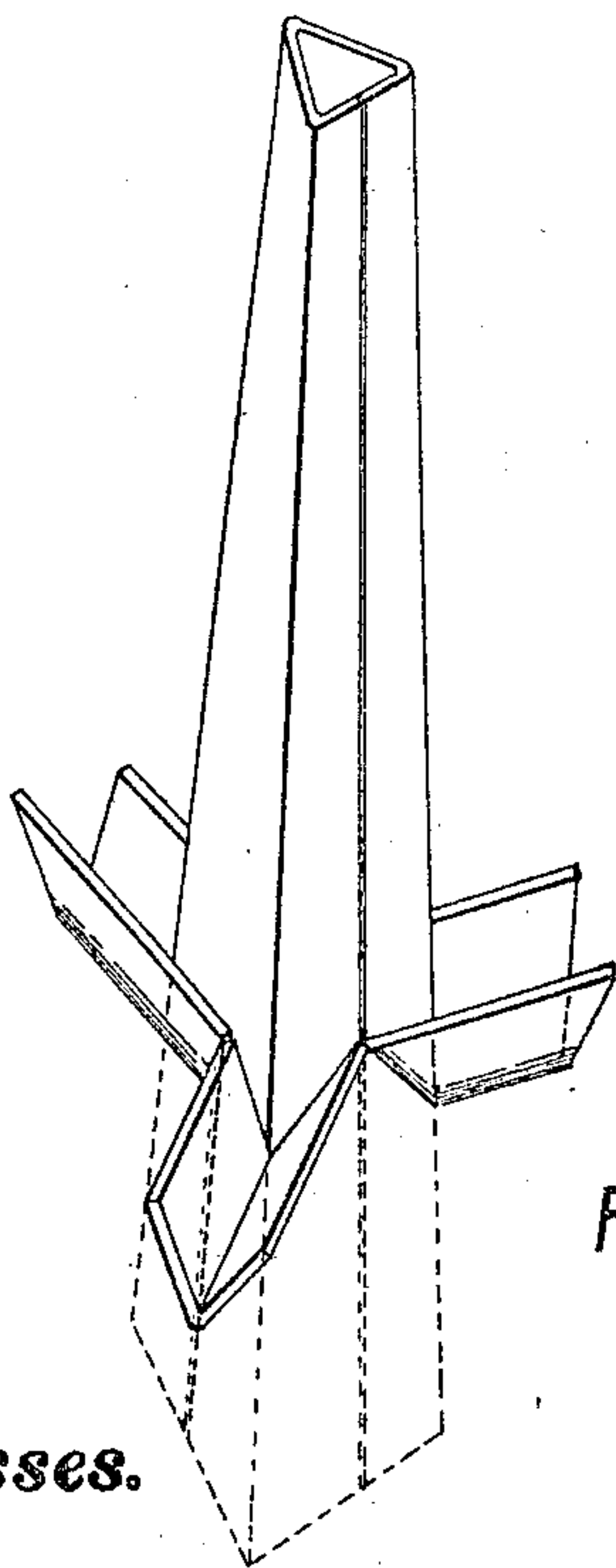


FIG. III

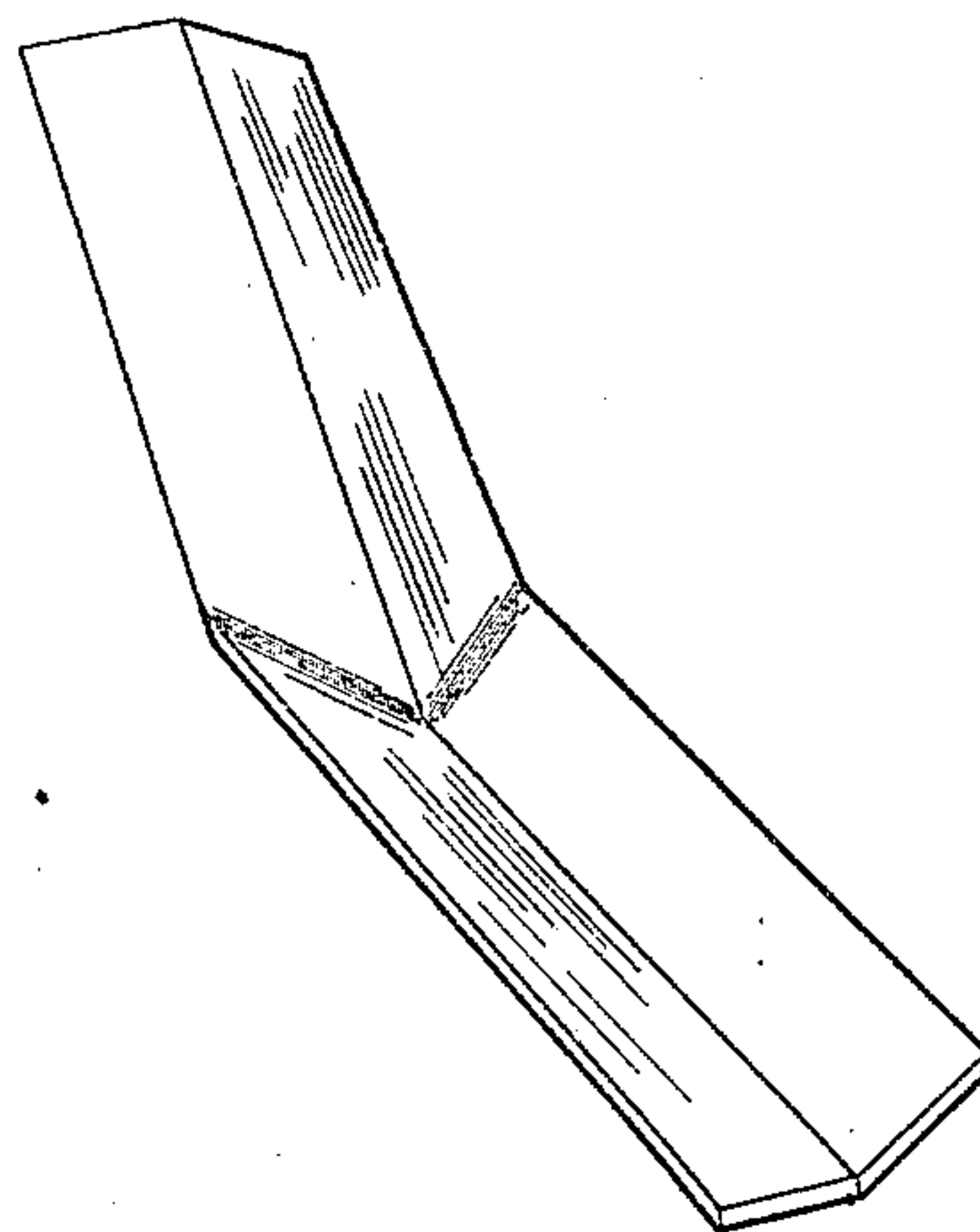


FIG. IV

Witnesses.

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RIGID METAL ANGLE-PIECE FOR USE IN STRUCTURAL FRAMES, METALLIC STANDARDS, &c.

952,016.

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

Application filed September 2, 1909. Serial No. 515,762.

To all whom it may concern:

Be it known that I, PURDIE PHIPPS, a subject of the King of Great Britain and Ireland, residing at Oatley, in the State of New South Wales, in the Commonwealth of Australia, have invented certain new and useful Improvements in Rigid Metal Angle-Pieces for Use in Structural Frames, Metallic Standards, and for Like Purposes, of which the following is a specification.

This invention refers to a particular form of fold or bend applied to metal strips or plates for the purpose of forming rigid angle pieces and does not purport to cover the means employed to make the said fold.

The object of this invention is to form an angle-piece possessing the maximum strength that is possible to be obtained from the metal used without reinforcement.

My method may be employed in the manufacture of structural metal work such as the frame-work of gates or vehicles or of standards or posts in which it is necessary that the metal forming the angles should be bent in such a manner as to offer the greatest possible resistance to a force tending to straighten it out.

The essential feature of my invention consists in bending the plate or strip to the requisite angle and simultaneously forming the metal longitudinally into reverse V shaped sections, in such a way that the channels formed in the two members or arms of the angle are on the opposite faces of the metal.

By this method of bending, the convex surface of one member becomes merged into the concave surface of the other, the result being an exceedingly rigid form of bend or fold which is easily made and requires no rivets or other means of reinforcement. The folds and bends would preferably be made by means of stamps and dies, and it has been found in practice that the best results are achieved by performing the operation in two stages, the first of which partially forms the reversed V's or channels and also partially effects the bend; while the second stage fully completes the said channels and the formation of the required angle. But in order that my invention may be clearly understood

I shall now refer to the accompanying drawings in which:—

Figure 1 is a perspective view of a single footed standard suitable for an ordinary fencing post, the foot thereof having been formed in the manner herein described. Fig. 2 is an enlarged perspective view of the foot-piece of same, (the original form of the standard before the construction of the foot piece being indicated by the dotted lines). Fig. 3 is perspective view of a tri-footed standard suitable for a telegraph post or for a corner or gate post of a fence. Fig. 4 shows portion of a metal plate, designed to be formed into an angle-piece, partially folded with its members forming an obtuse angle with one another, and having their channels only partially formed.

In the case of the tri-footed standard the metal sheet is folded in triangular form (as shown) and the portions of which the foot pieces are to be constructed are before folding back divided from each other by means of longitudinal slits. Should it be considered desirable to close the channels so that their sides are in contact with each other, this may be done, provided the metal used is of a sufficiently tough and ductile nature. With light sections of metal the operation may be performed cold, but with heavier sections it is desirable that the metal should be heated as in ordinary bending operations.

By means of this simple construction a metal angle piece can be formed possessing greater rigidity than could be obtained from the same metal by any other known method.

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

1. An angle piece formed of a metal plate longitudinally folded into two reverse V shaped sections, in such a way that the channels formed in the two arms of the angle are on opposite faces of the said metal, the convex surface of one member merging into the concave surface of the other, substantially as described and as illustrated.

2. An improved post or standard consisting of a single sheet of longitudinally channelled or folded metal, a portion of which is

folded backward at right angles thereto so
as to form one or more horizontal concaved
footpieces for the purpose set forth herein
and substantially as described and illus-
5 trated.

3. In a post or standard consisting of a
single piece of folded metal, one or more in-
tegral concaved foot-pieces folded back at
right angles thereto in the manner herein set

forth and substantially as described and 10
illustrated.

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

PURDIE PHIPPS.

Witnesses:

CHAS. HATTON,
WILLIAM NEWTON.