

No. 841,550.

PATENTED JAN. 15, 1907.

J. J. LEONARD.
METALLIC HOOK.

APPLICATION FILED OCT. 9, 1906.

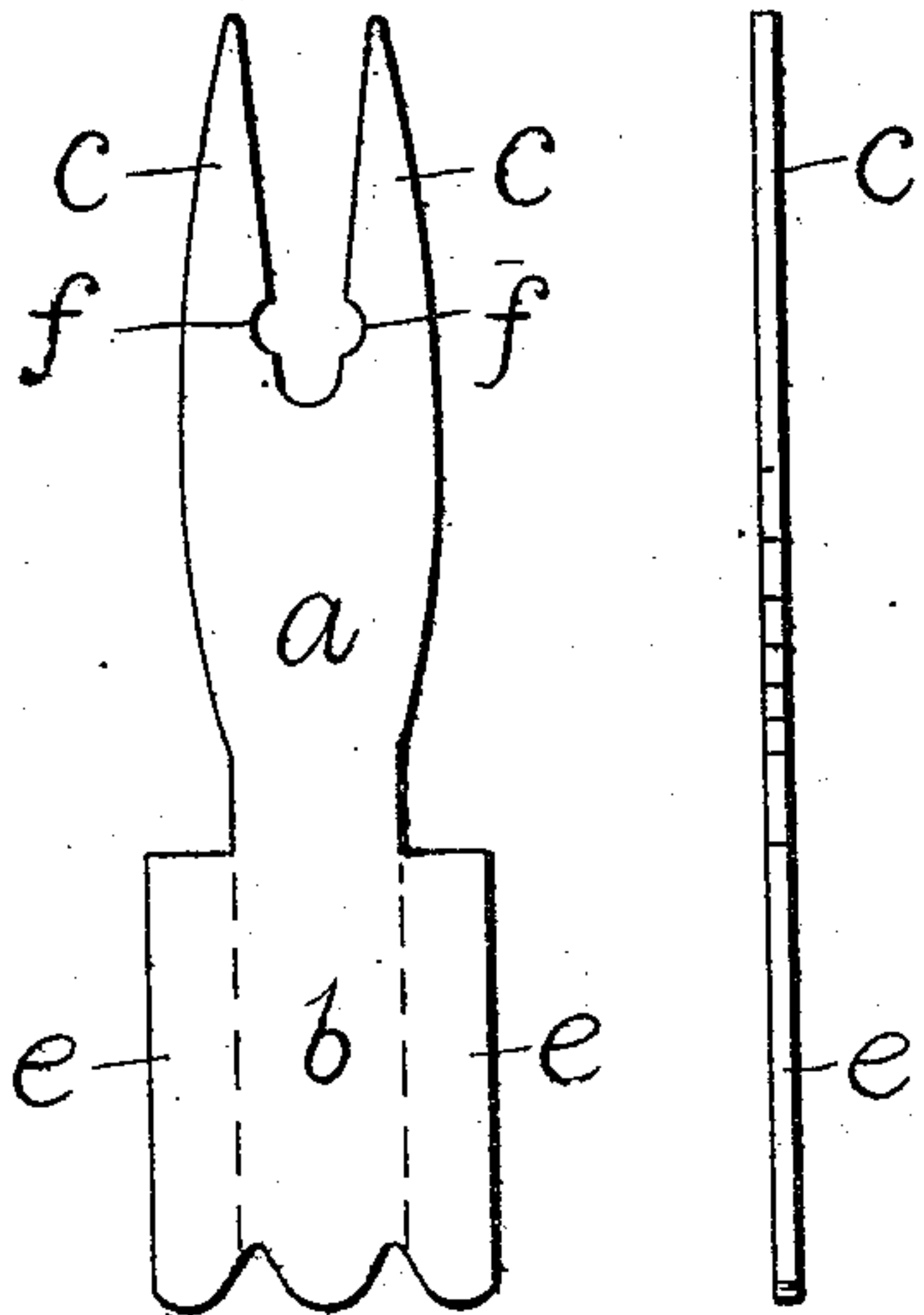


FIG. 1. FIG. 2.

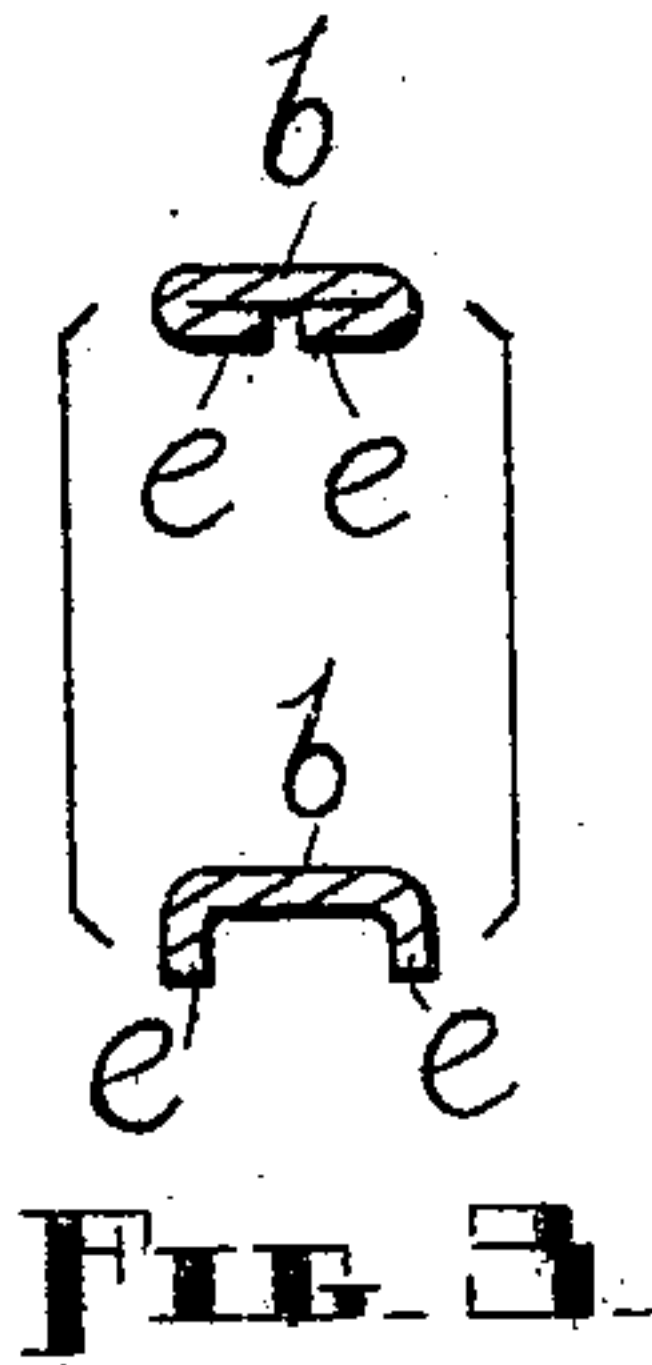


FIG. 3.

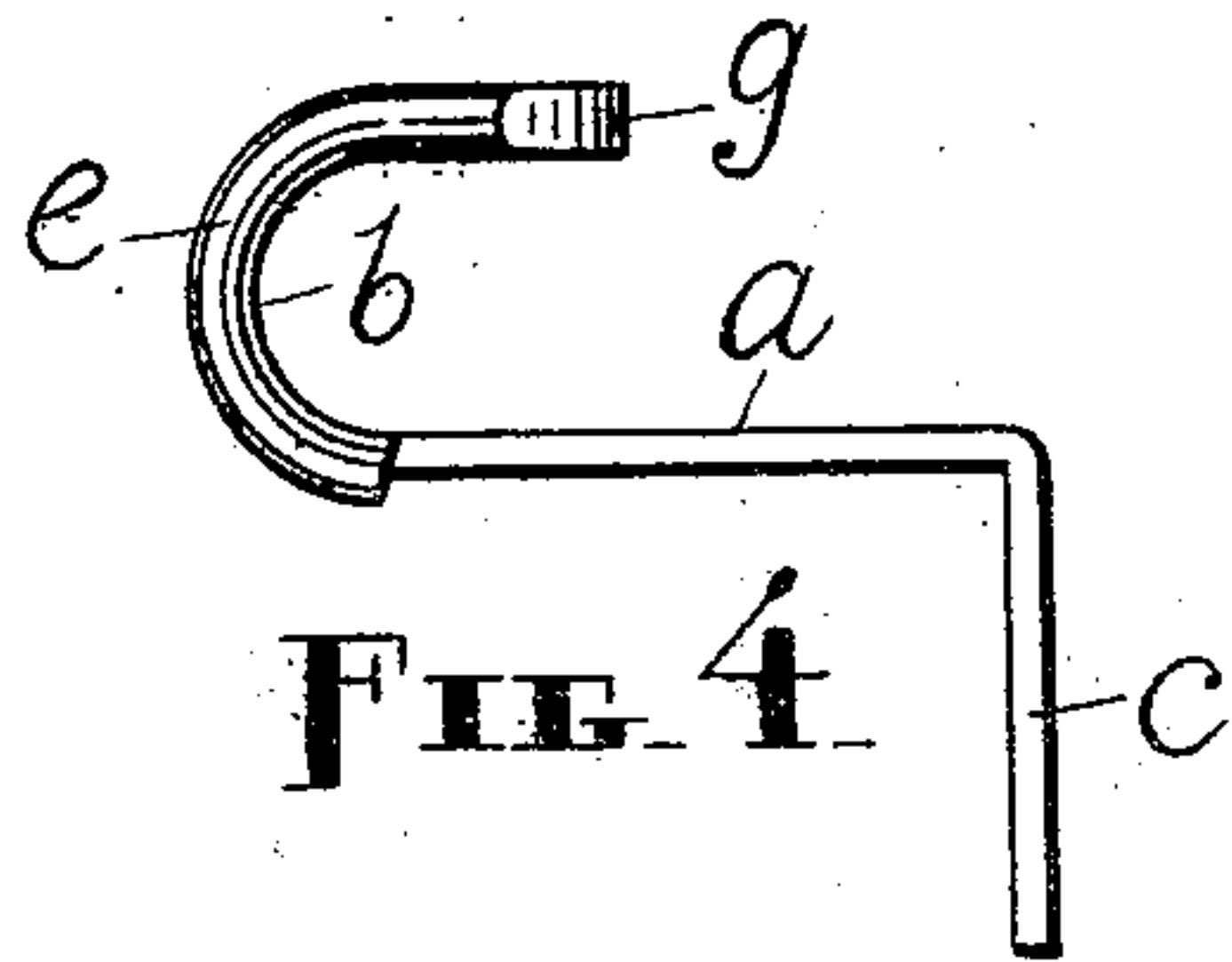


FIG. 4.

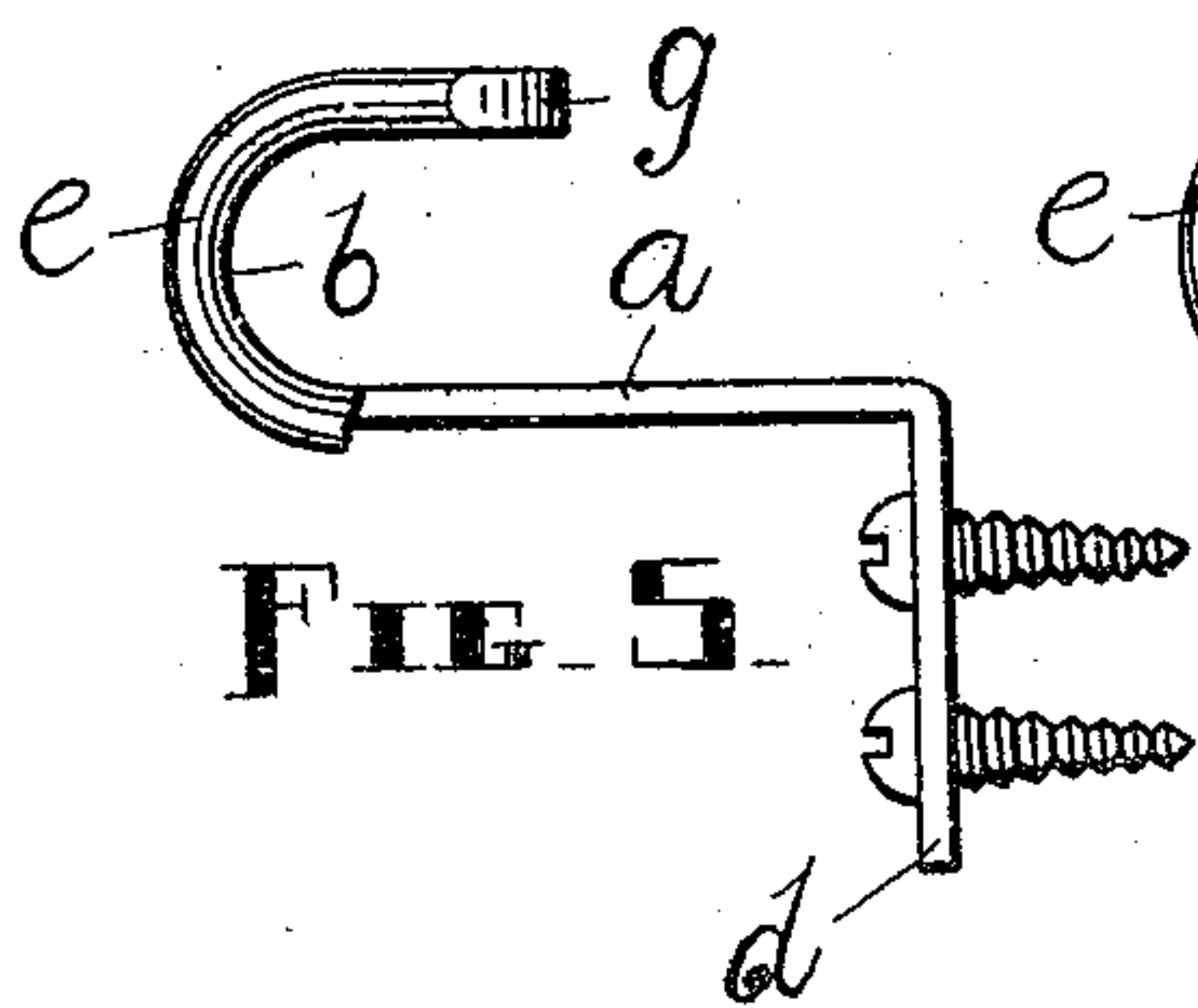


FIG. 5.

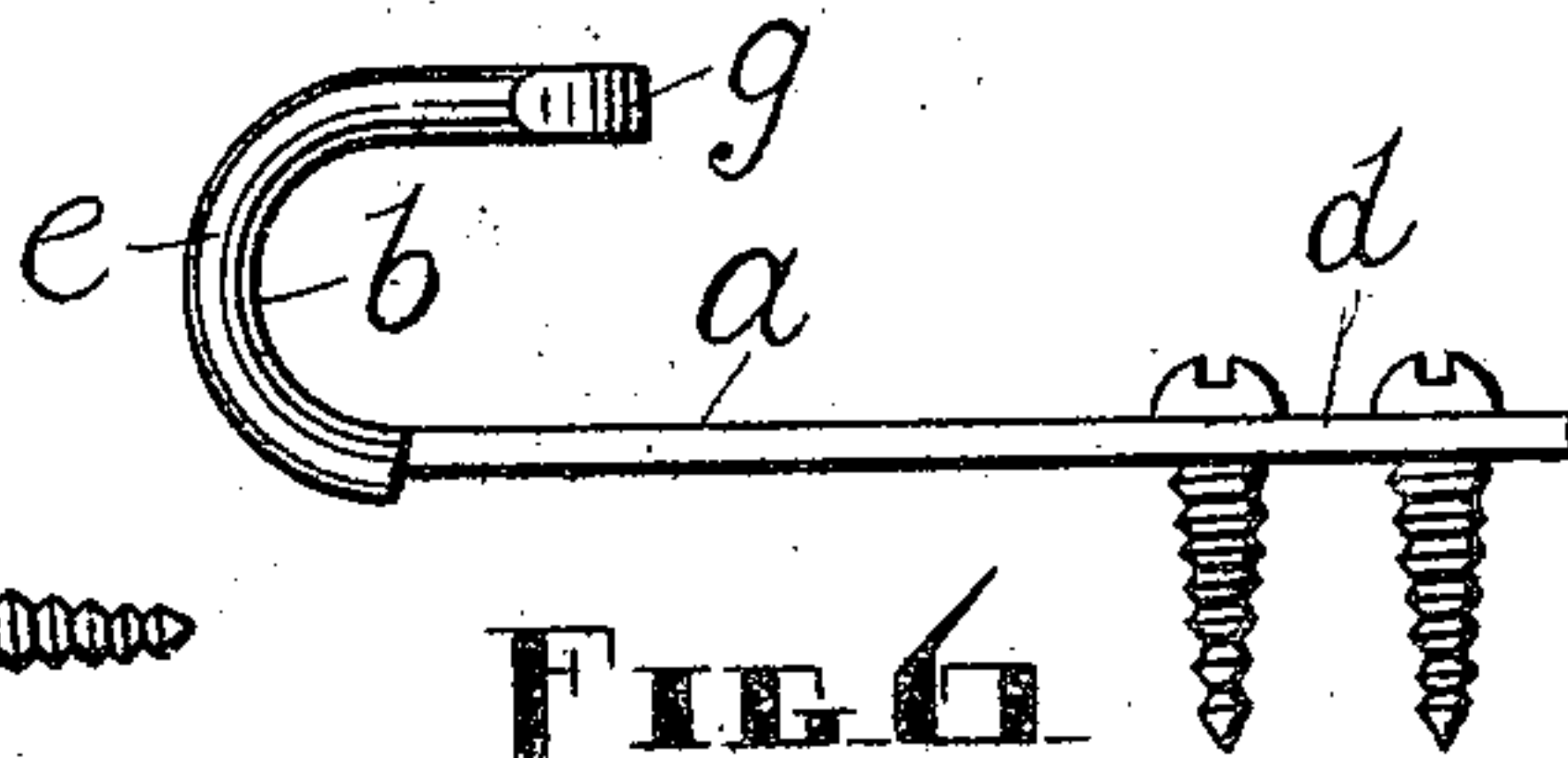


FIG. 6.

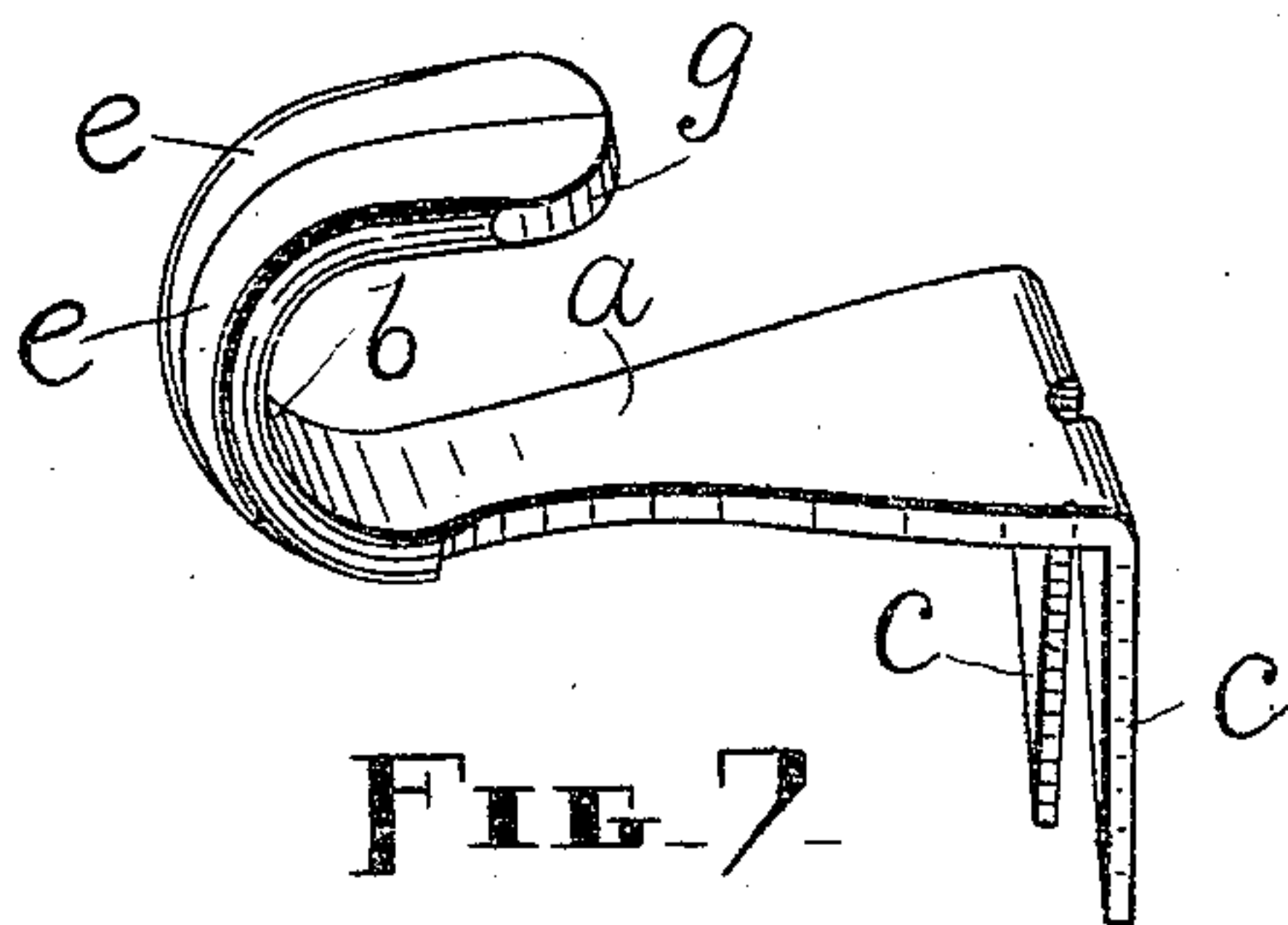


FIG. 7.

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METALLIC HOOK.

No. 841,550.

Specification of Letters Patent.

Patented Jan. 15, 1907.

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To all whom it may concern:

Be it known that I, JOHN J. LEONARD, a citizen of the United States of America, residing in Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Metallic Hooks, of which the following is a specification, reference being had to the accompanying drawings and letters of reference marked thereon.

My invention relates to the construction of metallic hooks designed for any purpose for which hooks may be employed, and especially for hooks of the type known as "clothes-line" hooks.

The object of my invention is to provide a hook of the character above referred to formed of a single piece of sheet metal, which shall be simple in construction, inexpensive in cost of manufacture, and very strong and rigid, and so constructed as to be conveniently attached, and one which will be especially rigid in the hook portion.

I accomplish the objects of my invention by the construction herein set forth.

In the accompanying drawings, in which like letters of reference indicate like parts, Figure 1 is a plan view of a blank cut from a piece of sheet metal, showing the first step in the process of the manufacture of my improved hook. Fig. 2 is an edge view of the same. Fig. 3 is an end view in section of the head portion of the hook, showing the sides turned at right angles and also turned over against itself. Fig. 4 is a side view of the hook bent into shape and adapted to be fastened in position by driving the attaching-spurs into the wood. Fig. 5 is a like view of a form of construction adapted to be held in position by the insertion of screws. Fig. 6 is a like view of a hook wherein the portion to be attached to the wood is an extension of the shank and parallel with it, and Fig. 7 is a perspective view of the form of construction shown in Fig. 4.

In detail, *a* indicates the shank; *b*, the head or hook portion proper; *c*, the spurs; *d*, plates substituted for the spurs; *e*, the portion of the head to be bent over to reinforce the head, and *f* locking-recesses.

The construction of my device will be readily understood on reference to the drawings in connection herewith.

The hook is made of sheet metal, steel of a

suitable quality being preferred. The body of the hook is struck from sheet metal by the employment of dies in the ordinary way, the preferred shape being that shown in Fig. 1. The attaching portion, however, may be formed in spurs, as shown at *c* in Fig. 1, or in the form of a plate, as shown at *d* in Figs. 5 and 6.

It is well known that the portion of a hook requiring the greatest strength is the head or bent-over portion and that if a hook be constructed of sheet metal without in any manner reinforcing the head it is necessary to either make the whole of the device of very thick metal or the hook portion will be deficient in strength. It is found also that if a hook be formed of a single thickness of material the edges will be left somewhat sharp and considerable expense will be involved in rounding the edges, so as to prevent their cutting the cord engaging the hook.

To construct a hook of reasonably thin sheet metal and yet give the requisite strength at the head portion of the device, I bend the metal at the sides of the head portion, thus giving the additional strength and rigidity at the point where it is required. This also forms rounded edges, preventing all danger of cutting the cord by abrasion on sharp corners.

I prefer to bend the metal on the dotted lines shown in Fig. 1, and I prefer that a sufficient portion be bent over so that the edges of the bent-over portion when bent down against the body will substantially meet, although this is unnecessary at all times, and it will readily be seen that great rigidity will result if the edges be bent over at right angles to the body. The better method of construction, however, is that wherein the bent-over portion lies against the body.

I prefer that the blank be cut in the shape shown in Fig. 1, the end portion adapted for the head being shaped as shown, so that when the sides are bent over against the central portion the end will be rounded, as shown at *g* in Fig. 7.

Where the device is adapted to be attached to the wood without the employment of screws or other independent fastening means, I prefer to form the spurs *c* at the attaching end, they being bent at right angles to the shank portion *a*, and these spurs being driven into the wood will hold the hook with sufficient

firmness, so that the employment of additional fastening means will not be required.

In some instances I prefer to form recesses or notches in the edge of the spurs *c*, similar to those illustrated at *f* in Fig. 1, and after the spurs *c* enter the wood the wood will expand into and fill the recesses *f*, and thus lock the spurs in position.

In Figs. 5 and 6 I show a construction identical with that before described, excepting that the attaching end portion is formed in a plate with screw-holes therein. In some instances the fastening-plate *d* is bent at right angles to the shank, as shown in Fig. 5, and in other instances lies parallel with it, as shown in Fig. 6. In all cases, however, the head portion is reinforced or strengthened by turning the metal forming the head either at right angles or over against itself, thus giving to the head great strength and rigidity.

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

1. As an improved article of manufacture, a hook formed of sheet metal with the hook portion doubled by bending side pieces down upon the plane of the hook and parallel therewith.

2. A sheet-metal hook formed of a blank, as shown in Fig. 1, having the head portion reinforced by bending the side portions over against the central portion and provided with spurs *c* at the opposite end thereof, substantially as shown.

3. A hook formed of sheet metal having engaging spurs *c* provided with recesses *f*, substantially as shown.

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