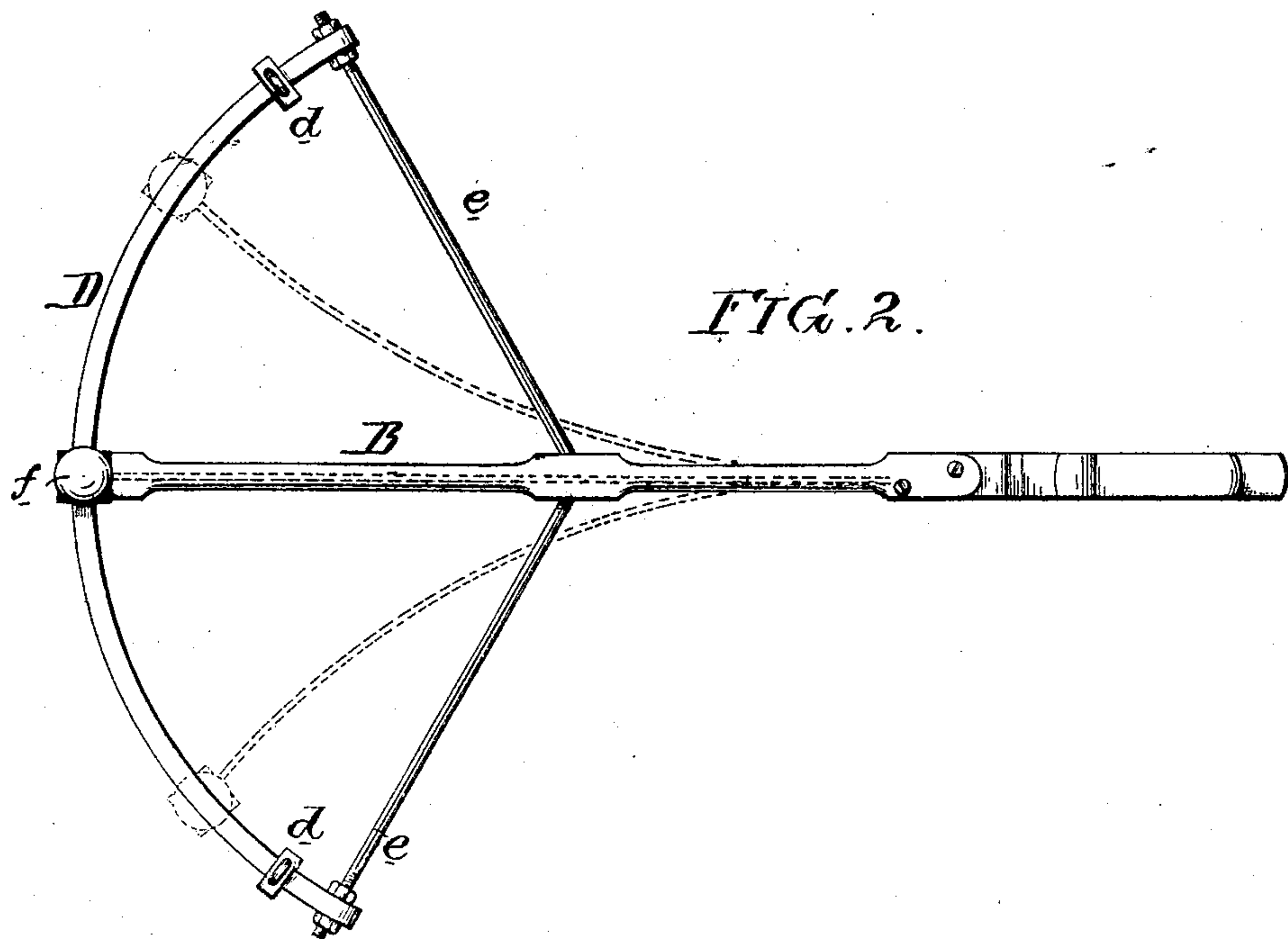


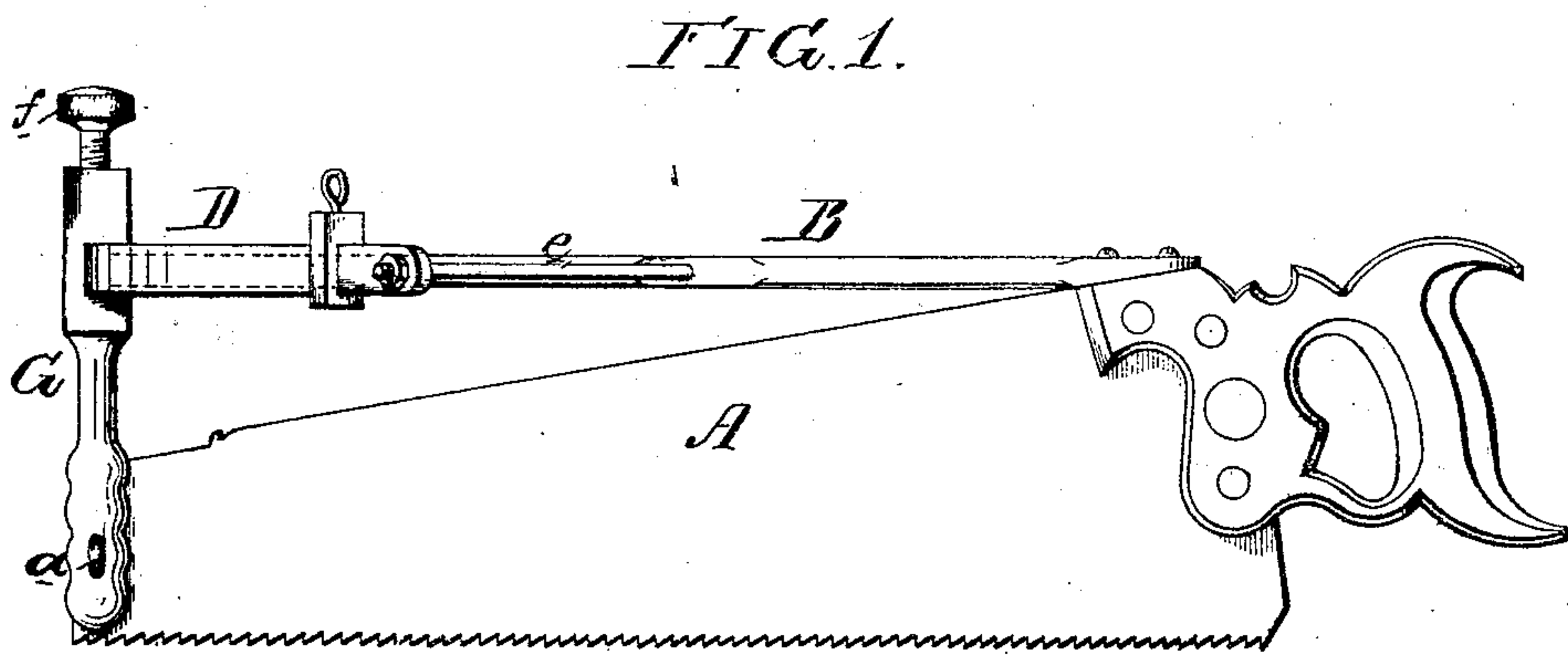
**G. ABRAMS.**  
**Hand-Saws.**

No. 151,818.

Patented June 9, 1874.



*FIG. 2.*



*FIG. 1.*

*Witnesses; Harry Smith*  
*Thomas M. Swan*

*Inventor;*  
*George Abrams*  
*By his Attyys.*  
*Horsens and Son.*

# UNITED STATES PATENT OFFICE

GEORGE ABRAMS, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO  
HENRY DISSTON & SONS, OF SAME PLACE.

## IMPROVEMENT IN HAND-SAWS.

Specification forming part of Letters Patent No. **151,818**, dated June 9, 1874; application filed  
May 18, 1874.

*To all whom it may concern:*

Be it known that I, GEORGE ABRAMS, of Philadelphia, Pennsylvania, have invented an Improvement in Hand-Saws, of which the following is a specification:

The object of my invention is to so adjust the blade of a hand-saw that it can be used to cut on a curved line; and this object I attain in the manner illustrated in the side view, Figure 1, and plan view, Fig. 2, of the accompanying drawing, in which—

A represents an ordinary hand-saw, to which is secured a frame, composed of a bar, B, attached to the handle, as shown, a segment or bow, D, attached to the outer end of the bar, and diagonal stays *ee*, for connecting the ends of the segments to the bar. The outer end of the saw-blade is connected by a pin, *a*, to the standard G, the latter being recessed to receive the segment D, along which the standard can be moved to any desired position, and to which it can be secured by a set-screw *f*, after adjustment. By means of this adjustable standard the blade may be curved in any direction, and may be retained by the set-screw *f* on the

said standard G, in the condition to which it has been bent, so that the saw can be used for cutting objects on a curved line coinciding with the curve of the blade. Two adjustable stops, *d d*, are adapted to the segment, one on each side of the bar B, for determining the limit of the movement of the standard G, and the extent of the curve of the blade, and the segment may be so graduated that by the adjustment of these stops in respect to the graduations, the blade may be bent to any predetermined curve.

I claim as my invention—

The frame composed of the bar B, segment D and its stays *ee*, in combination with the adjustable standard G, the whole being adapted to a hand-saw, as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE ABRAMS.

Witnesses:

WM. H. WRIGHT,  
E. B. LONG.