

M. J. COLLINS.
 HOLDER FOR SHARPENING GRAVERS OR OTHER TOOLS.
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975,329.

Patented Nov. 8, 1910.

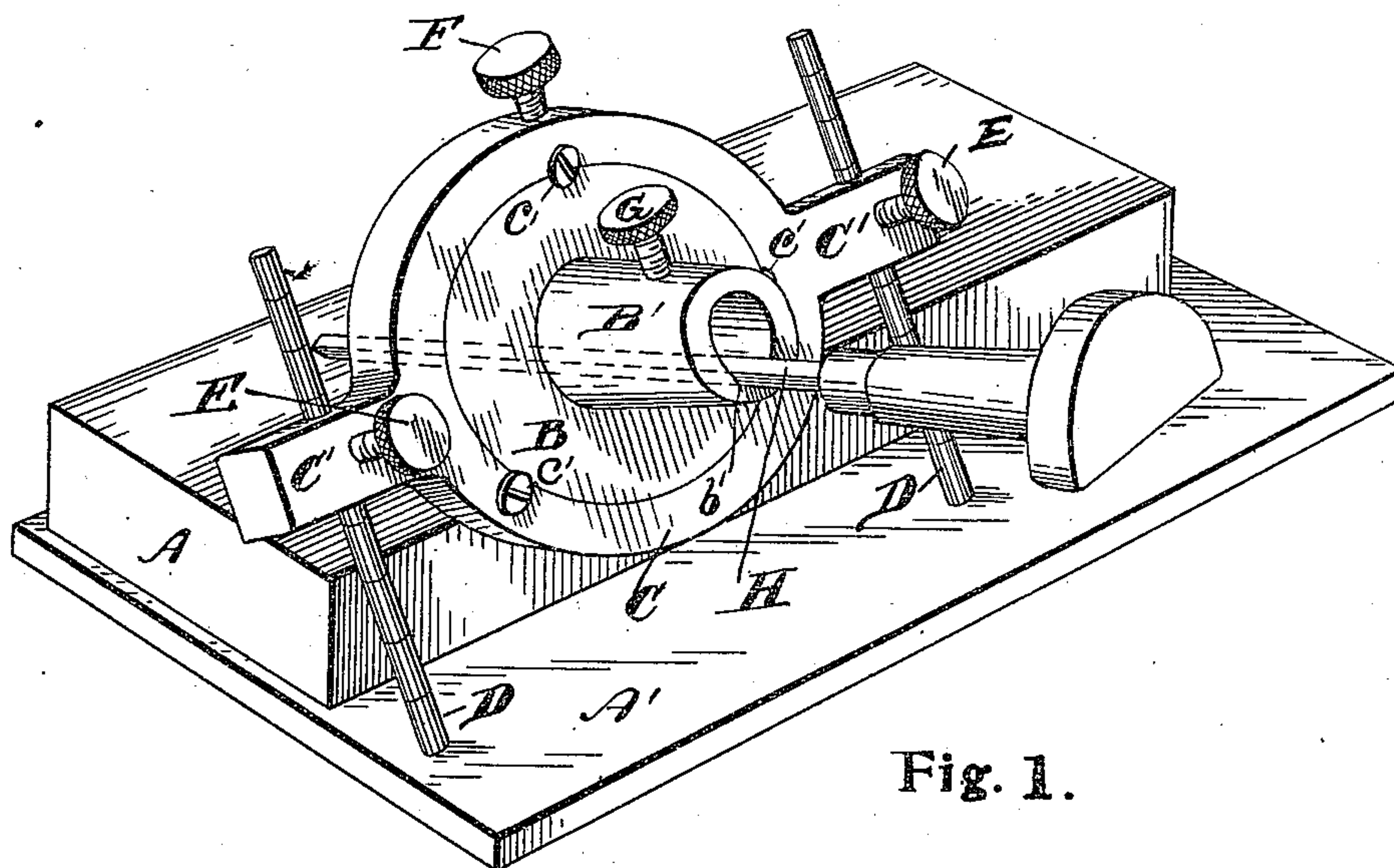


Fig. 1.

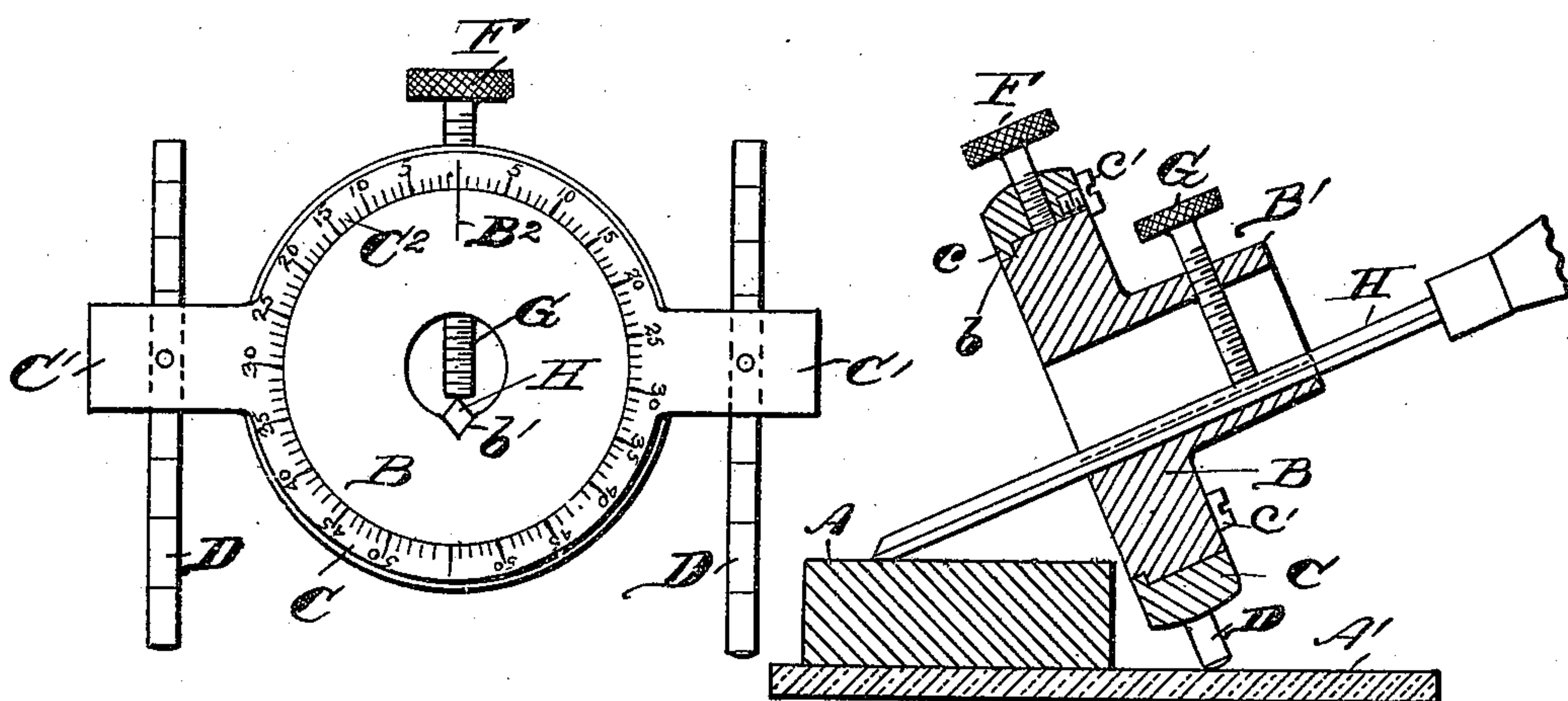


Fig. 2.

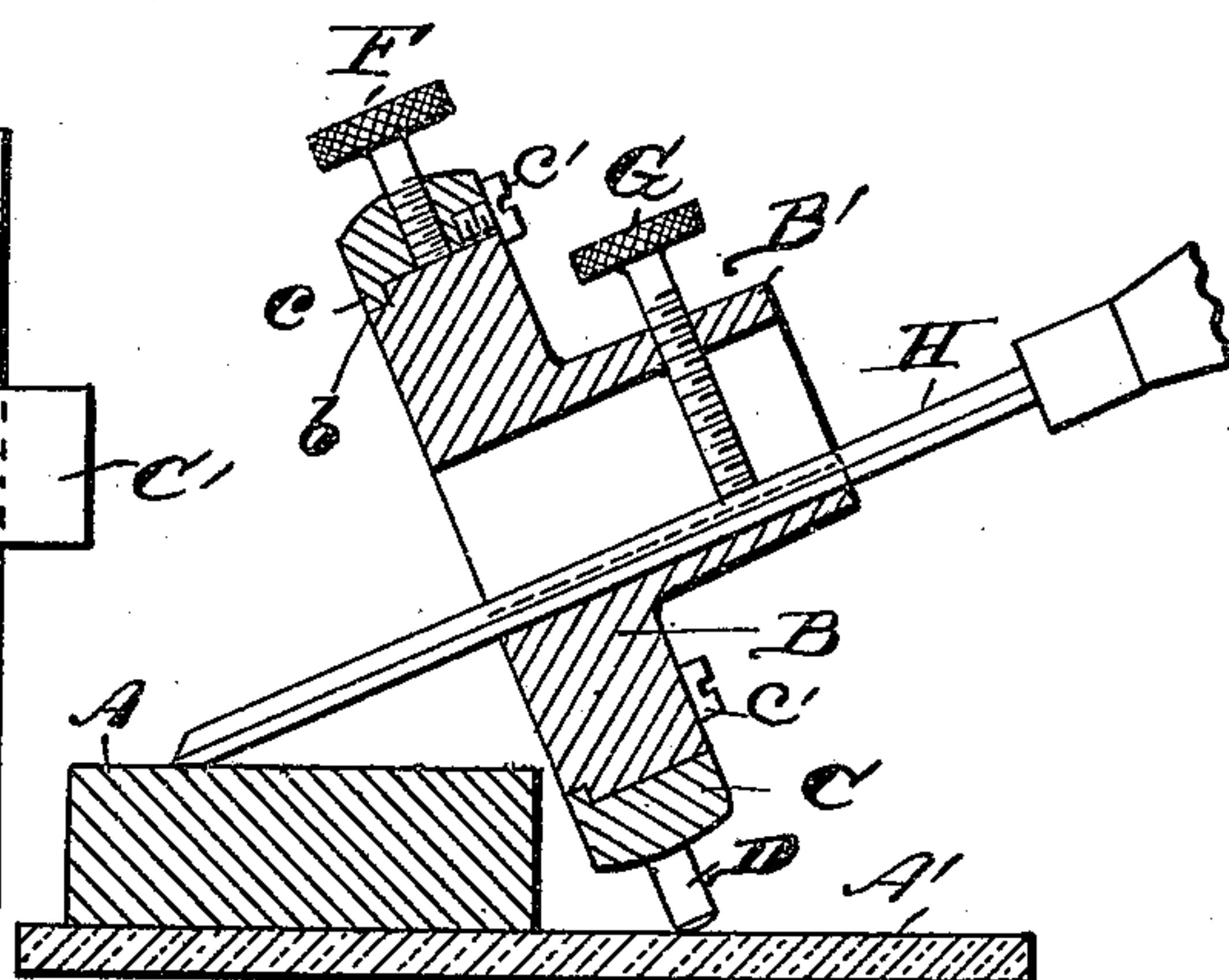


Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

MICHAEL J. COLLINS, OF DETROIT, MICHIGAN.

HOLDER FOR SHARPENING GRAVERS OR OTHER TOOLS.

975,329.

Specification of Letters Patent.

Patented Nov. 8, 1910.

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To all whom it may concern:

Be it known that I, MICHAEL J. COLLINS, citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Holders for Sharpening Gravers or other Tools, and declare the following to be a full, clear, and exact description of the same, 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 to an improvement in devices for supporting and holding gravers while being reground, shown in the accompanying drawings and more particularly pointed out in the claims.

The object of the present invention is to provide a simple, effective, and inexpensive device adapted to be adjusted to the requirements of the cutting edges or angles of the different forms of gravers in common use, whereby the tools may be resharpened on a suitable oil stone;—the original angle of the cutting edges of the tools being thereby preserved.

Other advantages and improvements will hereafter appear.

In the drawings accompanying this specification: Figure 1 is a perspective view of the device supporting a graver in position for sharpening. Fig. 2 is an elevation of the rotatable disk in which the tool is held, inclosed in the graduated supporting frame. Fig. 3 is a central cross-sectional view through the device showing the graver secured therein in position for sharpening.

Referring now to the letters of reference placed upon the drawings: A is a suitable oil stone, and A' a supporting slab of glass or other smooth material.

B is a rotatable disk supported in an annular frame C having projecting arms C' each of which is provided with an aperture through which projects the adjustable graduated legs D.

E are thumb screws having a screw-threaded engagement with the arms C' adapted to engage the legs D to secure them when properly adjusted.

c is an inwardly projecting flange formed in the annular frame C.

b is a complementary recessed portion formed in the rotatable disk B into which said flange projects.

c' are screws set in the annular frame, their projecting heads engaging the rotatable disk whereby the disk while being free to turn is held against lateral displacement between the screws c' and the projecting flange c of the annular frame. The screws may also be provided if desired with washers which would give additional bearing surface on the rotatable disk.

F is a thumb screw set in the annular frame and adapted to engage the disk to secure it against rotation.

B' is a projecting hub portion formed integral with the disk, through the wall of which is set a thumb screw G designed to engage the shank H of the graver or other tool to be sharpened to secure it when properly adjusted.

The central opening in the disk is preferably provided with a V-shaped groove b' in which the graver may set to secure it against displacement.

C² are a series of graduations formed on the annular frame C and B², a graduation or pointer on the disk B being provided to act in conjunction with the graduations C² whereby the graver may be set at any desired angle with respect to the central or neutral point and then re-set at a corresponding angle for the opposite edge of the tool.

Having indicated the several parts by reference letters, the operation of the device will be readily understood.

The graver is first secured in the rotatable disk which is adjusted to present one of its cutting edges to the proper angle to the stone, the legs D being also adjusted to present the graver at a proper angle thereto. The stone being supported on a slab of glass or other polished surface, the legs of the device are free to move readily when given a reciprocating motion in the direction of the length of the stone. Upon the completion of the sharpening of one of the surfaces the disk is adjusted in the opposite direction, the graduations indicating the proper angle and the disk again set when the operation just described is repeated.

Having thus described my invention, what I claim is:—

1. In a device for supporting and holding gravers while being ground, an annular supporting frame provided with projecting arms having perforations, legs passed through the perforations of the arms and

having rounded lower ends, means whereby the legs may be adjustably held in the perforations of said arms, the annular frame being provided with a series of graduations
 5 and at one edge having an inwardly projecting flange, an annular disk adapted to be set in said frame and having one edge shouldered to provide a recess for the reception of said inwardly projecting flange
 10 to prevent lateral displacement of the disk in one direction with relation to the annular frame, means secured to the annular frame and having portions adapted to engage the wall of the disk to secure it against lateral
 15 displacement in the opposite direction with relation to the frame, said disk having a projecting hollow hub provided with an internal angular depression in its inner annular wall extending throughout the length
 20 of the hub and the width of the disk, said angular depression being adapted to receive the shank of a projecting tool adapted to be set therein, an adjustable thumb screw passed through the wall of said hub and
 25 adapted to bear upon said tool to secure the latter against displacement, and means secured to the annular frame and adapted to bear against said disk intermediate the edges

of the latter to secure the disk against rotation. 30

2. In a device for supporting and holding gravers while being ground, a supporting frame, legs mounted in the frame, means for adjusting the altitude of the frame with respect to said legs, a disk supported in said
 35 annular frame and free to rotate therein, the disk having a recess and the frame being provided with a tongue fitting the recess to prevent lateral displacement of the disk in one direction, said frame having
 40 sockets adjacent the periphery of the disk, and means operable in said sockets and having portions overlapping the disk at its periphery to prevent lateral displacement of
 45 the disk in the opposite direction with relation to the frame, said disk having a hub adapted to receive and support a projecting tool, means for securing the tool in said hub, and means whereby the disk may be secured
 50 against rotation in the frame.

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

MICHAEL J. COLLINS.

Witnesses:

GRACE E. WYNKOOP,
 SAMUEL E. THOMAS.