

No. 706,392.

Patented Aug. 5, 1902.

J. CORLISS.  
HAND DOWELING GAGE.  
(Application filed Jan. 28, 1902.)

(No Model.)

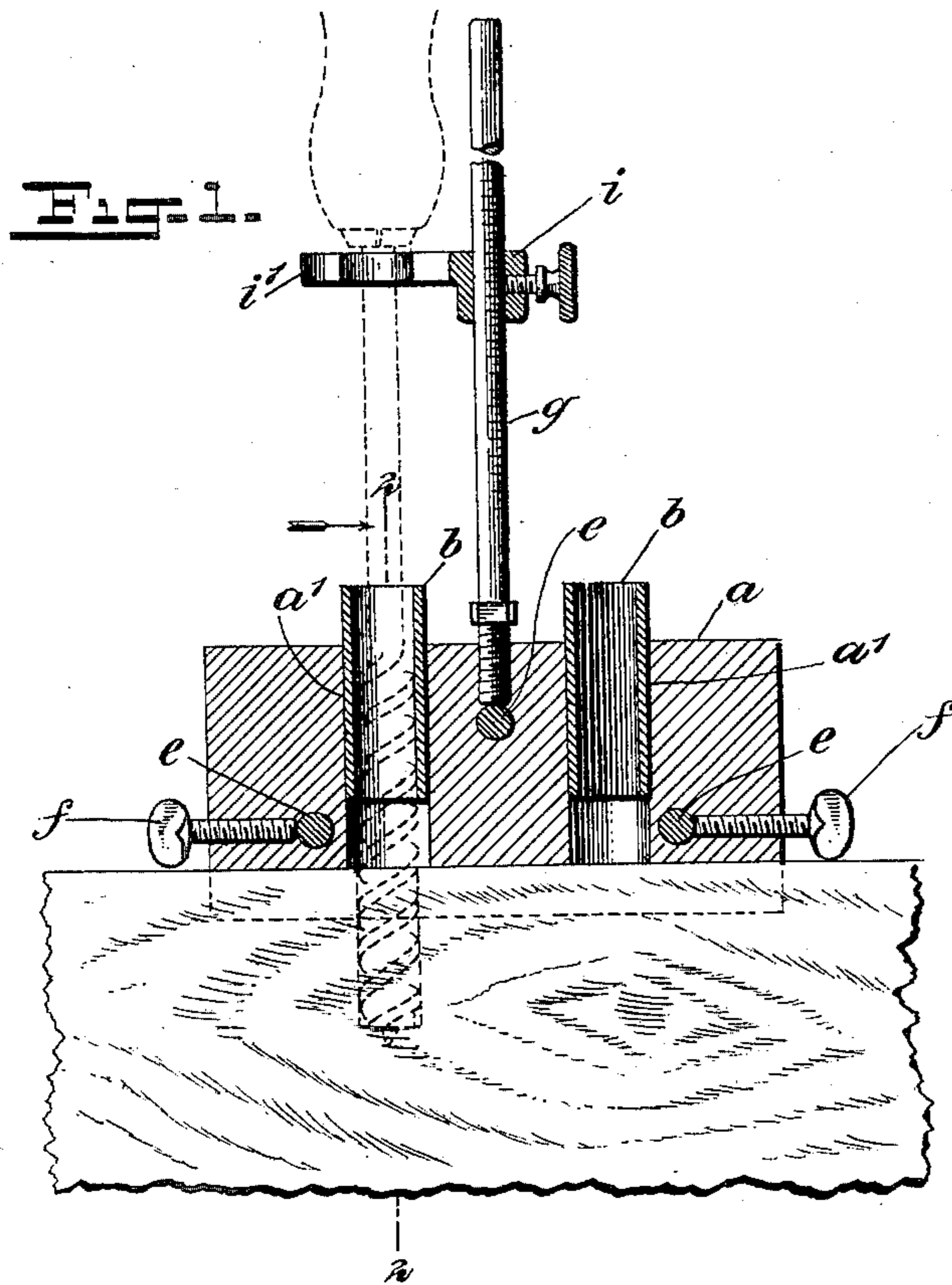


Fig. 1.

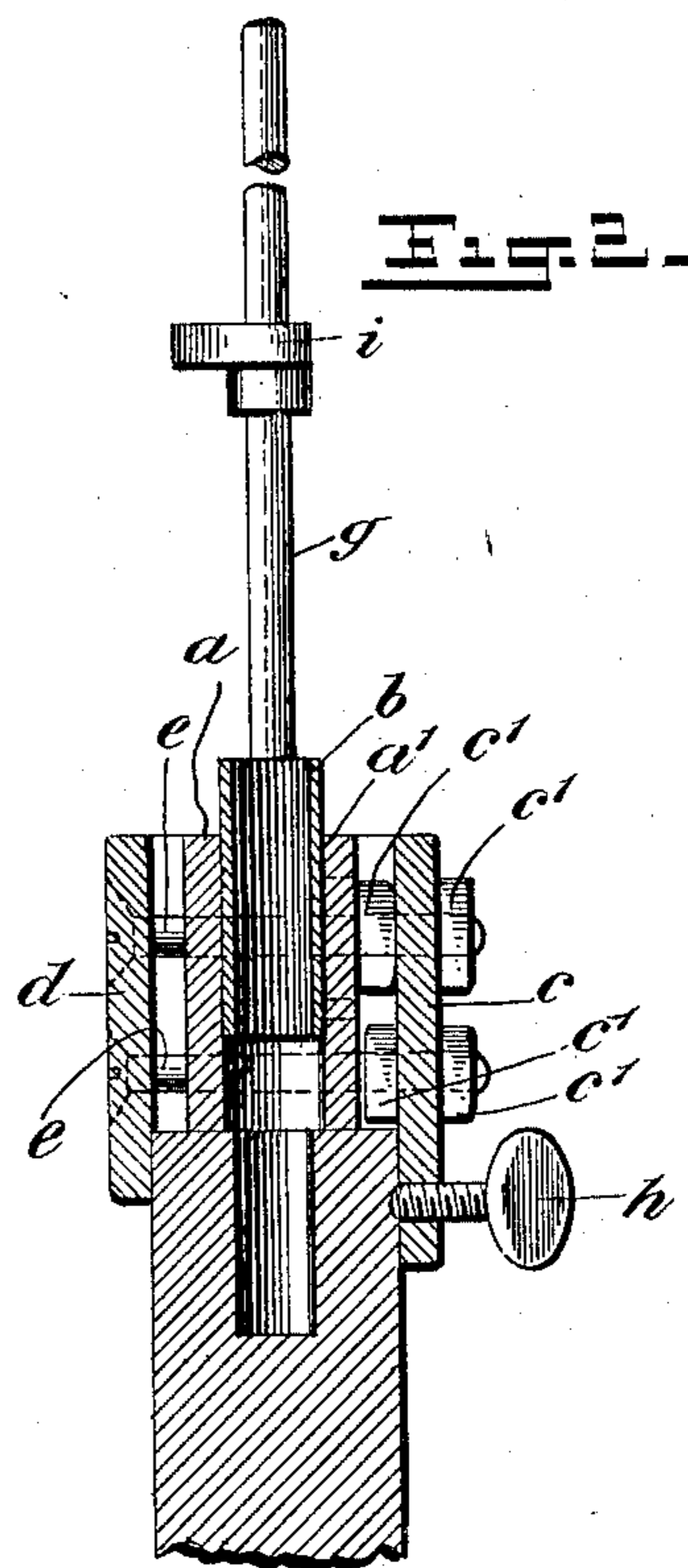
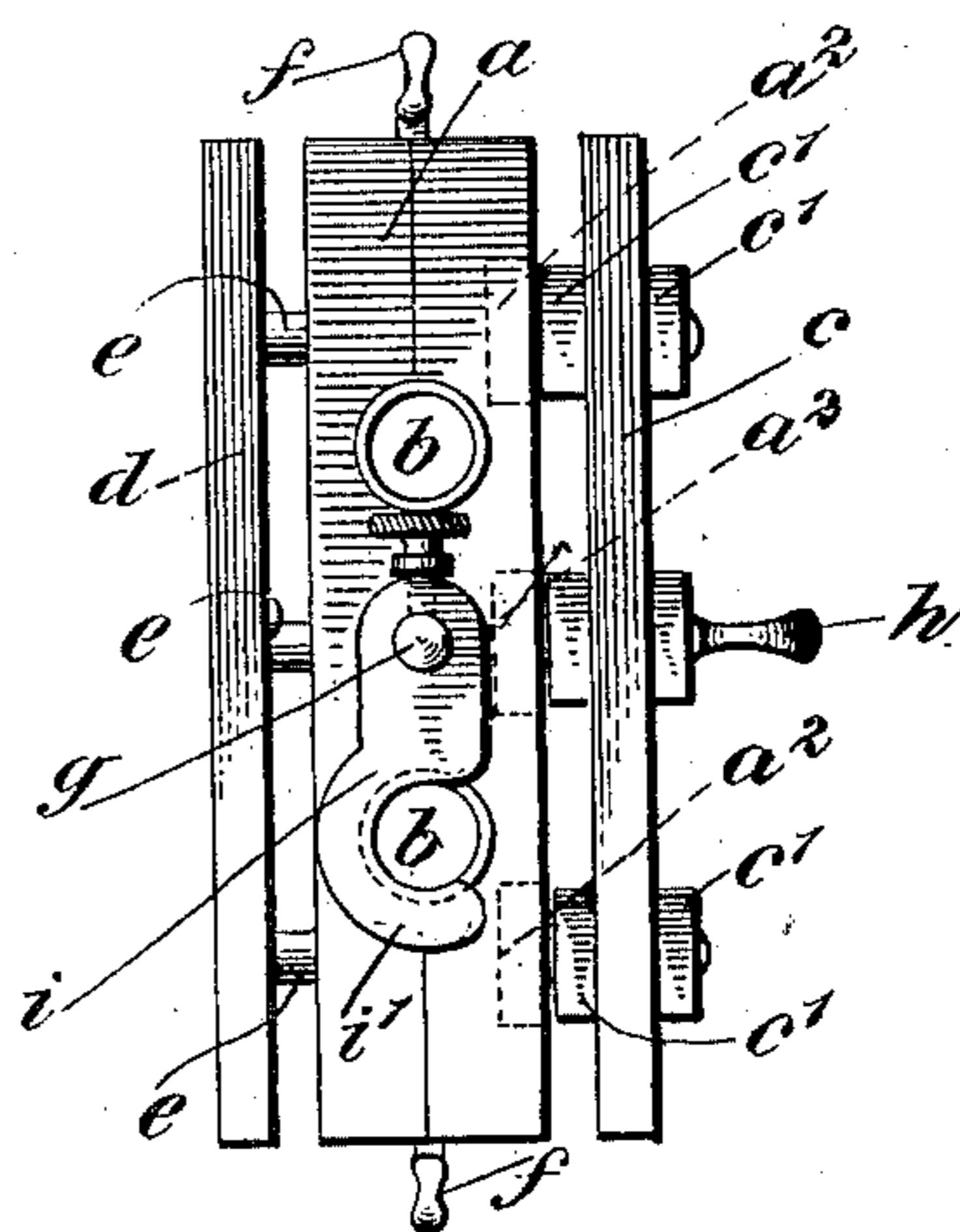
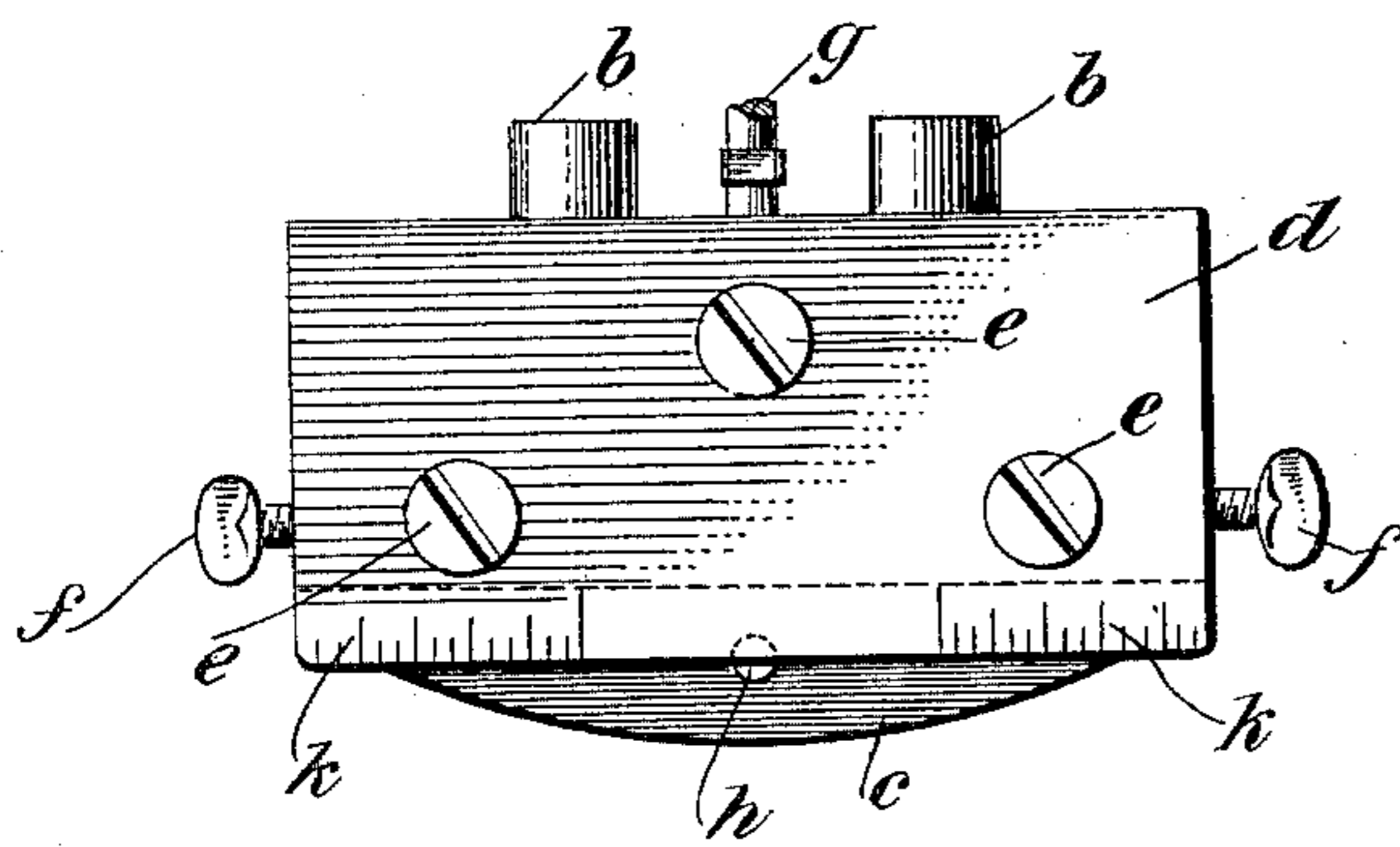


Fig. 2.



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# UNITED STATES PATENT OFFICE.

JOSEPH CORLISS, OF NEW YORK, N. Y.

## HAND DOWELING-GAGE.

SPECIFICATION forming part of Letters Patent No. 706,392, dated August 5, 1902.

Application filed January 28, 1902. Serial No. 91,579. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH CORLISS, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Hand Doweling-Gage, of which the following is a full, clear, and exact description.

The purpose of this invention is to provide an instrument for enabling carpenters and others easily and accurately to form the holes or sockets necessary in dowel connections.

The invention is particularly useful in building the frames of doors, screens, windows, and the like, although it may be used in many other ways, as will be obvious to persons skilled in the art. Ordinarily in boring dowel-holes complicated and exceedingly-accurate measurements are necessary, which require great skill and consume considerable time. By means of my invention the gage may be quickly set to the desired measurements and the holes bored rapidly and with absolute accuracy.

This specification is an exact description of one example of my invention, while the claims define the actual scope thereof.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a longitudinal section of the invention, showing it in use. Fig. 2 is a section on the line 2 2 of Fig. 1. Fig. 3 is a side elevation of the invention, and Fig. 4 is a plan view thereof.

*a* indicates the body of the gage, which is formed with two parallel vertical passages *a'*, serving to guide the bit, which is indicated by dotted lines in Fig. 1. In order to adapt the gage to bits of various sizes, I provide spacing-tubes *b*, which are fitted friction-tight within the passages or openings *a'*, so as to reduce the diameter thereof. In practice these openings *a'* should be made sufficiently large to take the largest-size bit which the gage is adapted to work within, and then the spacing or reducing tubes *b* may be employed to adapt the instrument to smaller-sized bits. These tubes may be made to fit one within another to form all the necessary reductions,

or, if desired, different tubes of varying thicknesses may be used to effect the same result.

Carried at each side of the body *a* of the gage are the gage-plates *c* and *d*. The plate *d* is fastened rigidly to the transversely-extending screws *e*, which are preferably three in number and pass loosely through the body *a*. These screws *e* are held adjustably in place by set-screws *f* and *g*, which work in the body *a*. The screws *e* are arranged in triangular position with respect to each other, and the two lower screws are engaged by the thumb-screws *f*, while the screw *g* engages the upper screw *e*. The plate *c* is adjustably held on the ends of the screws *e* opposite the plate *d* by means of the nuts *c'*, arranged two on each screws *e* and lying at opposite sides of the plate *c*, as shown. The body *a* is formed (see Fig. 4) with cavities *a''*, in which the inner nuts *c'* may be received when the plates *c* and *d* are drawn closely against the body *a*. The plate *c* is projected downward, as shown best in Figs. 2 and 3, and carries a thumb-screw *h*, the purpose of which will be fully explained hereinafter.

The screw *g* is vertically elongated or in the form of a rod or standard, as shown in Figs. 1 and 2, and it is graduated along its upper part, so that a stop-arm *i* may be adjusted thereon to various positions as desired. This stop-arm, as shown best in Fig. 4, has a hook-like portion *i'*, adapted to have the bit passed through it, and the arm is arranged to be engaged by the chuck in which the bit is held, so as to limit the boring movement of the bit. These devices therefore constitute a depth-gage, so that after properly setting the parts the boring may be carried on quickly and without regard to the depth, the arm *i* acting automatically to stop the bit when the proper depth has been reached.

In the use of the invention the gage-plates *c* and *d* are adjusted to the width of the work in which the dowel-holes are to be formed, and then by measurements made with respect to the center line of the body *a* (see Fig. 4) the gage-plates are placed equal distances from the centers of the bit-passages *a'*, after which the screws *f* and *g* are tightened against the pins or screws *e*, thus holding the plates *c* and *d* rigidly in place. The gage is then

fitted on the work and the thumb-screw *h* tightened, as shown in Fig. 2. When this has been done, the arm *i* is adjusted on the rod or standard *g*, so as to allow the bit to enter the work for the desired distance, producing a hole of the necessary depth. Then the bit should be operated to produce the dowel-holes by working the bit through the passages *a'* or through the reducing-tubes *b*, as the case may be. The tool may be readily shifted from one piece of work to another by loosening the thumb-screw *h*.

Now it will be observed that when the dowel-holes are bored by this gage they will naturally match in the various pieces of work, and after the holes are bored it is only necessary to insert the dowel-pins and glue or fasten them in place. As indicated at *k* in Fig. 3, the gage-plate *d* may be provided with graduations running from the centers of the passages *a'* outward toward the ends of the gage-plate. This enables the operator to gage the positions of the dowel-holes with respect to the end of the work with which the gage is used. It will be observed that the instrument may be readily adjusted to work of all sizes and that it may be used in all branches of carpentry. It will be found especially useful in various branches of house carpentry—such as the making of door-frames, window-sashes, partitions, and the like, where it is desirable to dowel the parts instead of fastening them by other means.

Various changes in the form and details of my invention may be resorted to at will without departing from the spirit of my invention. Hence I consider myself entitled to all forms of this invention as may lie within the intent of my claims.

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

1. A doweling-gage, comprising an orificed body portion, a pin or rod transversely adjustable therein, means for rigidly holding the pin or rod, a gage-plate fastened rigidly to one end of the pin or rod, a second gage-plate on the other end of the pin or rod, and nuts working on threaded portions of the pin

or rod and lying at opposite sides of the second-named plate, adjustably to hold it.

2. A doweling-gage, comprising an orificed body portion, a rod carried transversely thereby, a gage-plate mounted on one end of the rod, a second gage-plate mounted on the other end of the rod and movable thereon longitudinally thereof, means for adjustably holding the second gage-plate in place, and means for adjustably holding the rod on the body portion.

3. A doweling-gage, comprising a body portion having a hole therein for the boring-tool, said body serving as the gage proper, a transverse rod carried adjustably thereby, and gage-plates carried by the rod, one of said gage-plates being adjustable on the rod in direction longitudinally thereof.

4. A doweling-gage, comprising a body portion forming the gage proper, means for holding the same in place, a standard mounted on the body, and a depth-gage arm adjustably carried on the standard and having a hook-like portion adapted to embrace the bit, for the purpose specified.

5. A doweling-gage, comprising a body portion having a hole therein for the boring-tool, said body forming a gage proper, a rod adjustably mounted therein transversely thereto, means for adjustably holding the rod, and gage-plates carried on the rod and relatively adjustable thereon longitudinally of the rod.

6. A doweling-gage, comprising a body portion serving as the gage proper, a transverse rod movably mounted therein, gage-plates carried on the rod, one of said gage-plates being adjustable thereon, for the purpose specified, a threaded rod or screw working in the body portion and serving adjustably to hold the said transverse rod, and a depth-gage arm adjustably carried on the said rod or screw.

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

JOSEPH CORLISS.

Witnesses:

WM. P. LEACH,  
CHARLES H. TOTTEN.