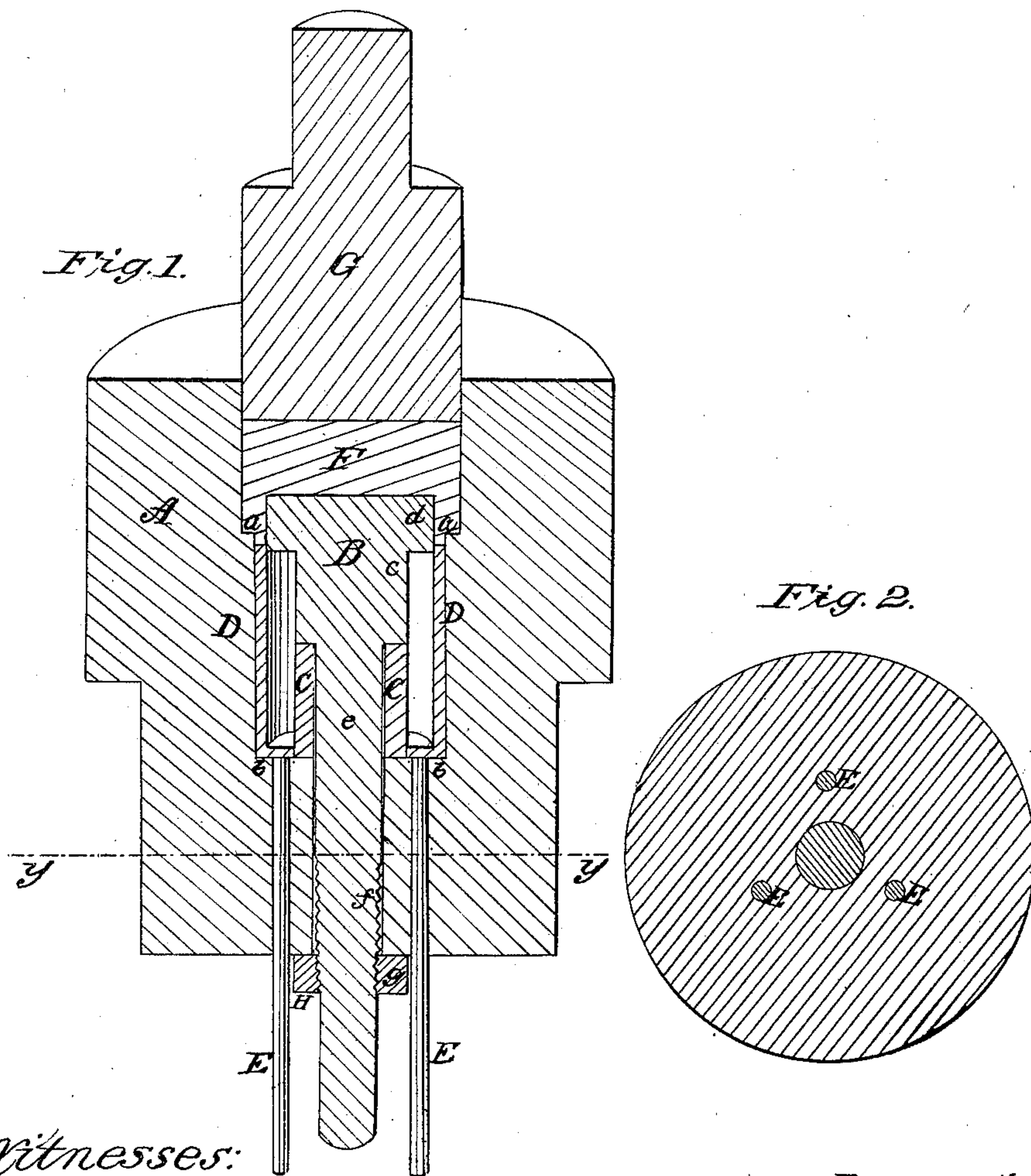


W. Weeks,
Making Wooden Boxes.
N^o 81,852. Patented Sep. 1, 1868.



Witnesses:

W. Brown
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United States Patent Office.

WILLIAM WEEKS, OF ALBANY, NEW YORK.

Letters Patent No. 81,852, dated September 1, 1868.

IMPROVED DIE FOR STAMPING WOODEN BOXES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, WILLIAM WEEKS, of Albany, in the county of Albany, and State of New York, have invented a new and improved Die for Stamping Wooden Boxes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical central section of my invention.

Figure 2 is a horizontal section, taken in the plane of the line *y y*, fig. 1.

Similar letters of reference indicate like parts.

The object of my invention is to provide a suitable and convenient device for stamping or pressing the inside of a wooden box, and a rabbet on its top edge, for the reception of its cover, by one and the same operation, which object I accomplish by the use of a sleeve and collar and punch with a die, and operated by rods and a plunger, as will be more fully hereinafter described.

A designates a die, made of iron or steel, or other suitable metal, and is perforated centrally from its top to its bottom, as shown in section in fig. 1. Said perforation is of three different diameters, as shown in the same figure.

At the top of the die, said perforation is made of the diameter or size of the outside of the required box F, and of a sufficient depth for the same. Below this first chamber, an inner rabbet, *a*, is formed, of a size suitable to the box which is to be formed within the die A.

From the rabbet *a*, the central aperture is continued downwards about one and a half time, or twice the depth of the required box F, forming a second chamber, within which the sleeve D is placed, and operated by rods, E, passing through the lower part, and outside of the shank *e* of punch B, as shown in fig. 1.

From the bottom of the sleeve D to the bottom of the die A, the central aperture is about half an inch in diameter, for the reception of the shank *e* of the punch B. There are also three smaller holes, extending from the bottom of the sleeve D to the bottom of the die A, as shown in figs. 1 and 2.

B designates a punch, made of steel or other suitable metal. The top of said punch is made of a diameter equal to that of the inside of the required box F, and of any suitable depth, as shown in fig. 1.

The body, *c*, of the punch B is made about three-eighths of an inch less in diameter than its top, *d*, and the shank *e* of the punch is about half an inch in diameter, and extends below the bottom of the die A, and is furnished with a thread, *f*, and nut, *g*, near its lower end, as shown in fig. 1.

C designates a loose collar, or it may be a number of washers, fitting snugly to the shank *e* of the punch, and whose outer diameters are equal to that of the body *c* of the punch B.

The bottom of the collar C rests upon the bottom of the second chamber, or middle part of the central aperture running through the die A, as shown in fig. 1.

D designates a loose metal sleeve, fitted to slide easily over the head or top, *d*, of punch B, and within the middle portion or second chamber of the die A, as shown in fig. 1.

The bottom of said sleeve D is perforated, with an opening in its centre equal to the outer diameter of collar C, so as to allow of an unobstructed and free motion of sleeve D up and down the outside of collar C, and within the chamber in which the sleeve D is placed.

E designates rods, passing upwards from the bottom of die A to the bottom of the sleeve D, as shown at *h* in fig. 1. Said rods E may be operated upon from their bottoms to move upwards against sleeve D, by any suitable well-known device, such as cams or levers, for producing such motion.

F designates a wooden box, showing its position within the die A, after having been pressed down by plunger G, upon the tops of punch B and sleeve D.

H designates a nut, upon the lower part of shank *e* of punch B.

From the above description, it will be seen that the punch B is secured firmly to its place within the die A by means of the nut H. Also, that the sleeve D is made to slide freely up and down within its chamber or socket, within the die A. Also, that the sleeve D is moved upwards by the rods E.

The mode of operation of this improved die will be as follows:

A block of wood, of the right size for the required box, is placed within the upper part of the die A, the plunger G is made to descend upon it, pressing it down upon the punch B, thus forming the inside of the box F, and, at the same time, also pressing the wood down into the rabbet *a*, formed by the top of the sleeve D, in the manner shown in fig. 1, thus forming the rabbet on the top of the box F, upon which its cover is fitted; then, by pressure or a blow upon the bottoms of rods E, the sleeve D is forced upwards, carrying with it the perfectly-shaped box F to the top of the die A, where it may be thrown out by any suitable mechanism.

This process may be repeated very rapidly and economically.

Having thus described my invention, and the mode of its operation, what I claim as new, and desire to secure by Letters Patent, is—

The combination of sleeve D, rods E, punch B, and collar C with a die, A, and plunger, G, constructed substantially as and for the purposes herein shown and described.

WM. WEEKS.

Witnesses:

H. S. McCALL,

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