

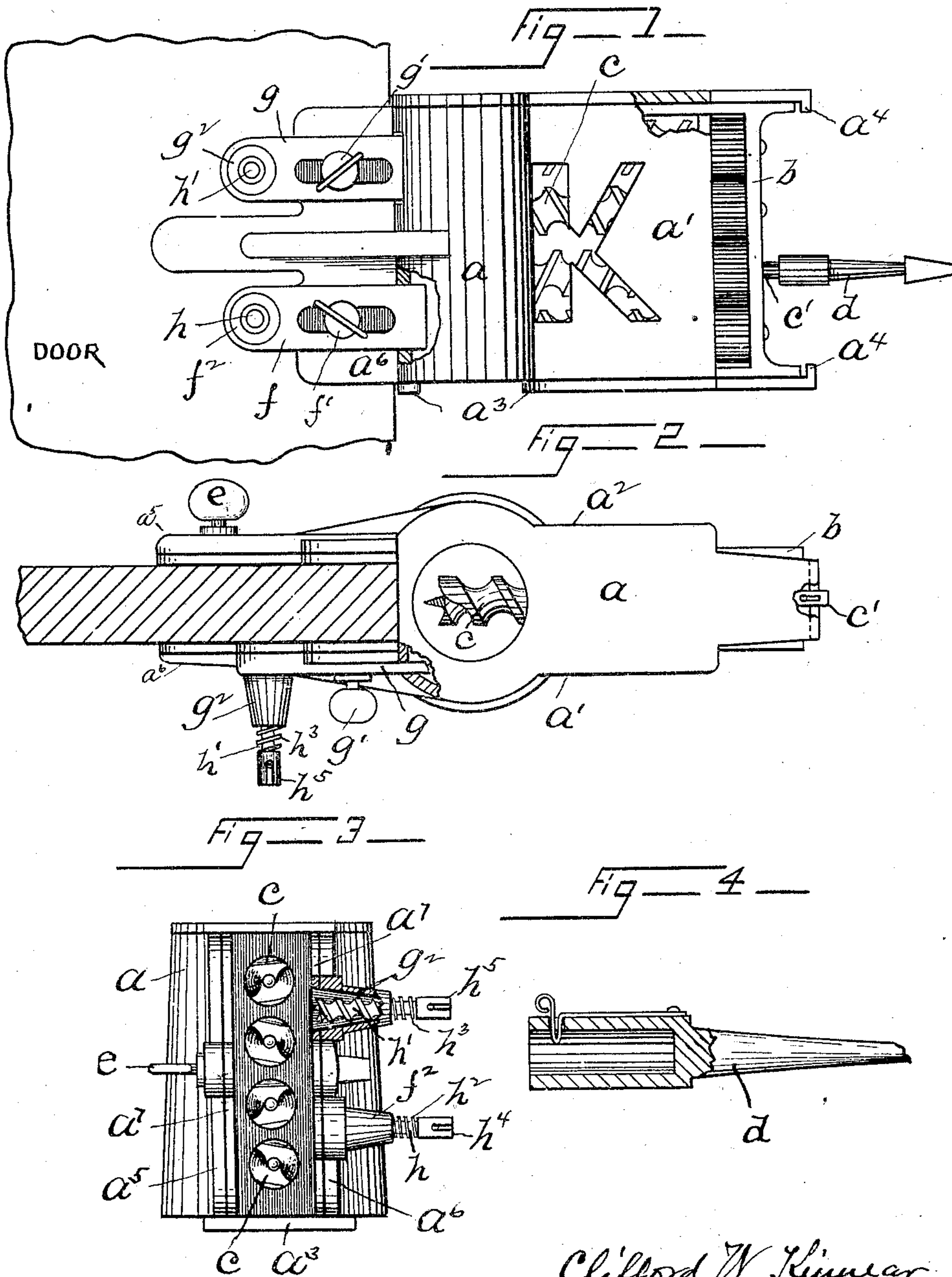
No. 842,318.

PATENTED JAN. 29, 1907.

C. W. KINNAR.
MORTISING TOOL.

APPLICATION FILED MAR. 24, 1906.

2 SHEETS—SHEET 1.



Clifford W. Kinnear,
Inventor,

Witnesses
Frank C. Palmer
Frank H. Allen

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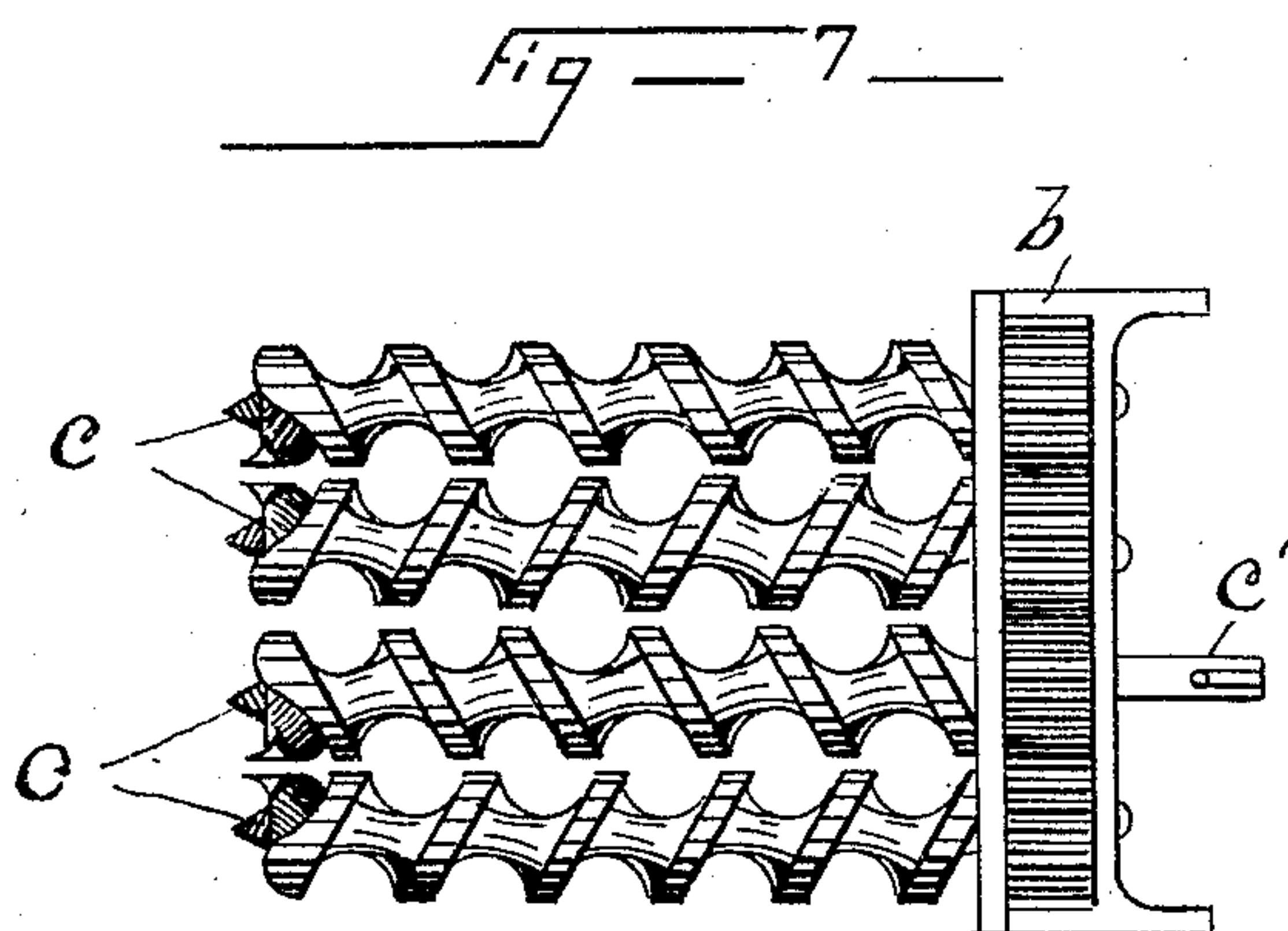
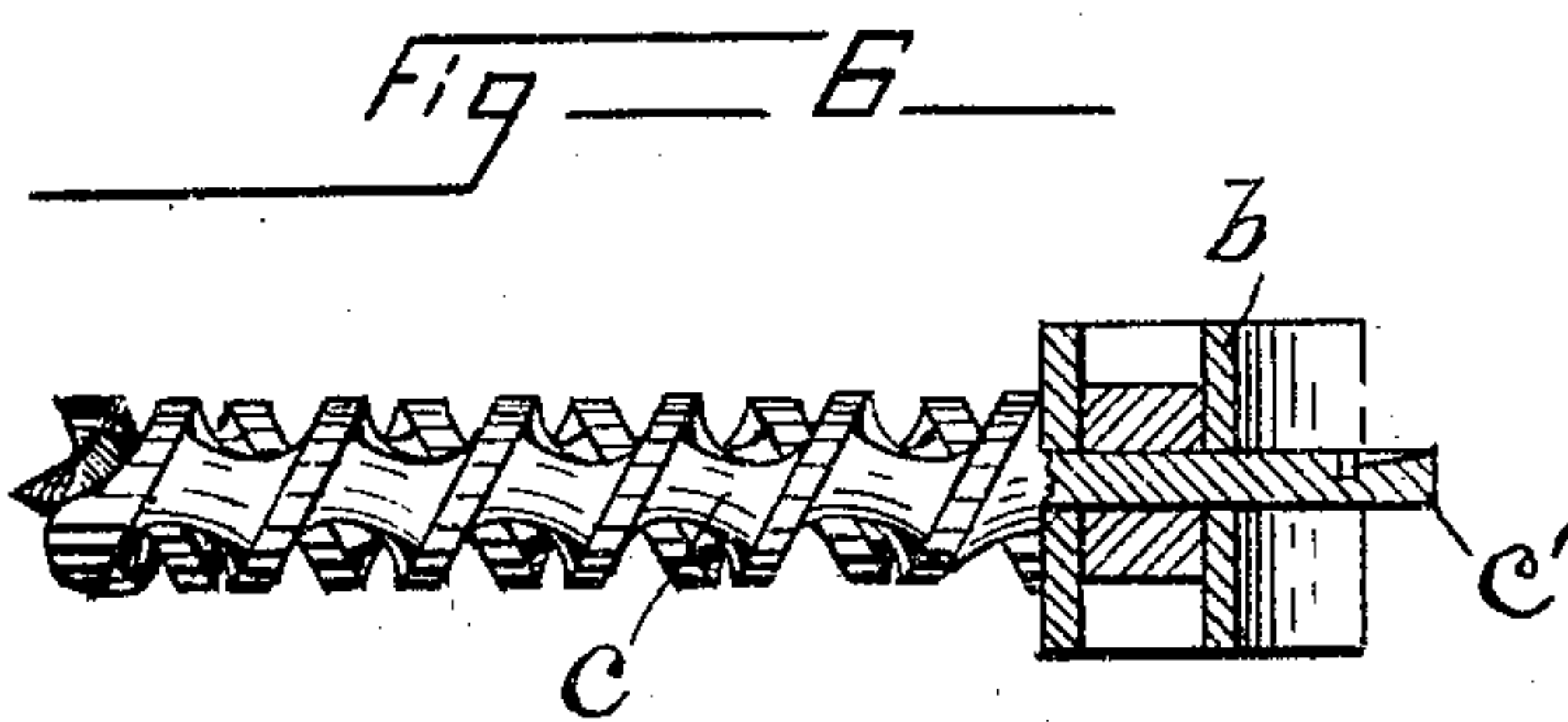
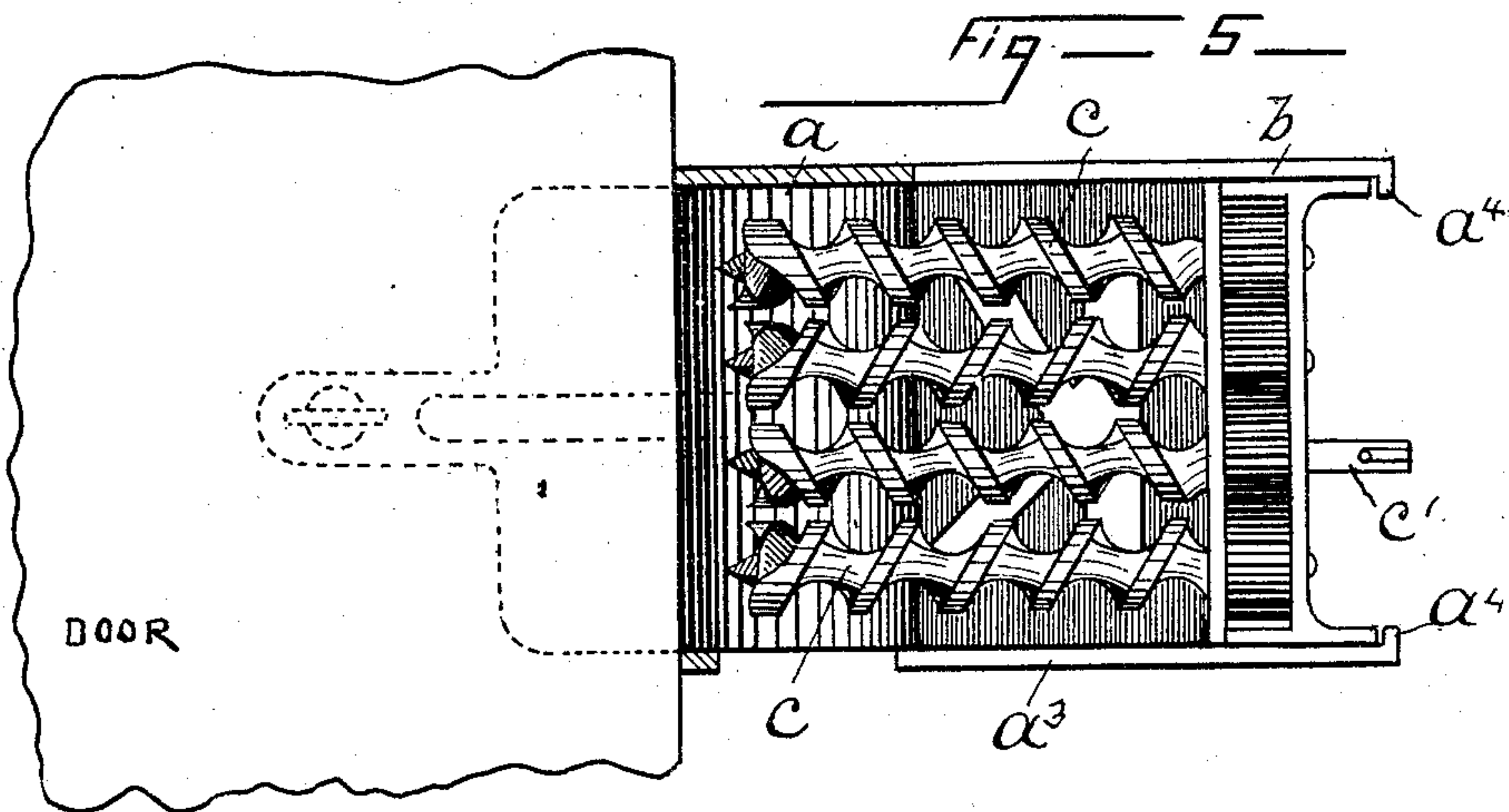
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UNITED STATES PATENT OFFICE.

CLIFFORD W. KINNEAR, OF BEARDSTOWN, ILLINOIS.

MORTISING-TOOL.

No. 842,318.

Specification of Letters Patent.

Patented Jan. 29, 1907.

Application filed March 24, 1906. Serial No. 307,823.

To all whom it may concern:

Be it known that I, CLIFFORD W. KINNEAR, a citizen of the United States, residing at Beardstown, in the county of Cass and State of Illinois, have invented certain new and useful Improvements in Mortising-Tools, which improvements are fully described in the following specification, reference being also had to the accompanying drawings.

This invention has for its object the production of a convenient and reasonably cheap mortising-tool for "letting in" locks in doors and for simultaneously boring for the knob-spindle and keyhole, the construction and operation of said tool being such that absolute accuracy is assured.

My said invention is clearly illustrated in the annexed drawings, Figure 1 being a side elevation of a mortising-tool embodying my present improvements and showing also a portion of a door to which the said tool is assumed to be clamped. Fig. 2 is a top or plan view of the same. Fig. 3 is an elevation of said tool as viewed from the end which is clamped to the door when the tool is in service. Fig. 4 is a relatively enlarged detached view of a removable shank used with the several bits in the said tool, said shank being shown in Fig. 4 largely in central longitudinal section. Fig. 5 is a vertical sectional view of the carriage *b*. Fig. 6 is a side view, and Fig. 7 is a top view, of the carriage *b* removed from the casing of the tool.

In these drawings the letter *a* indicates a light housing, preferably of cast metal, having sides *a'* *a''* and bottom *a'''* and of suitable shape to receive a carriage *b*, which is adapted to slide within said housing, said carriage having mounted therein a plurality of auger-bits *c*, that are geared together, as shown, and are thus adapted to rotate in unison. Every alternate auger is formed with a left-hand cutting-bit, and one of said augers has its rear end extended, as at *c'*, in order to receive a removable shank *d*, that may be used with an ordinary carpenter's brace. The carriage *b* is prevented from backing completely out of the housing by stop-ribs *a''*.

The front end of the housing is open, as is best seen in Fig. 3 of the drawings, and the sides of said housing are formed with extension *a''* *a'''* of plate form, between which the edge of the door may be entered, (see Figs. 1 and 2,) the inner faces of said extension-

plates being preferably faced with rubber or leather *a''* in order to prevent scratching or otherwise disfiguring said door.

After the mortising-tool has been slipped over the edge of the door it is clamped in desired position by means of a thumb-screw *e*, and when it is thus secured in position it will be obvious that the auger-bits *c* may be set in revolution and two or more holes bored simultaneously in the edge of said door. As the bits are drawn into the wood the carriage *b* works freely forward in the housing.

In order to bore for the keyhole and knob-spindle hole, I have provided slotted plates *f* *g*, that are adjustably clamped to the extension *a''* by means of thumb-screws *f'* *g'*, and on the outer or free ends of said adjustable plate I have formed bosses *f''* *g''*, in which are auger-bits *h* *h'*, that are forced normally outward by springs *h''* *h'''*, that abut enlarged heads *h''* *h'''* on the outer ends of said augers. These heads *h''* *h'''* are of the same size as the extension *c'* of one of the augers *c*, so that the shank *d* may be used with the said heads, as will be understood from the drawings.

When it is desired to use my described tool, the housing is first clamped to the edge of the door at the point when the latter is to be mortised. The bits *c* are then rotated until the proper depth has been bored, when the said bits are backed out, the carriage *b* meanwhile sliding rearward in the housing until it is stopped by the ribs *a''*. The bit *h'* is then bored through the door to provide an opening for the knob-spindle, and finally the bit *h* is operated in like manner to provide keyhole-openings. It will be obvious that after the tool has been once adjusted it is necessary to transfer it from door to door and bore as above described until all of the doors throughout a house have been bored.

The several auger-bits are so arranged and supported that the bored holes must be in absolutely correct relation to each other, and it will be obvious that by the use of such a tool as I have described a great saving of time will be effected.

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

1. In combination, a frame, means for clamping the same to a door, a carriage slidably mounted in said frame, a plurality of

augers revolubly mounted in said carriage, and an auger adjustably supported at a right angle to the said plurality of augers.

2. In combination, a frame, a carriage
5 slidably mounted in said frame, a plurality of augers revolubly mounted in said carriage, augers *h h'* adjustably mounted on said frame at right angles to the said plurality of augers, and springs for maintaining said augers *h h'* in their inoperative positions.

3. In combination, a frame, a plurality of augers slidably mounted in said frame, means for clamping said frame to a door, and augers *h h'* adjustably mounted on said frame and adapted to bore at right angles to
15 the said plurality of augers.

CLIFFORD W. KINNEAR.

Witnesses:

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