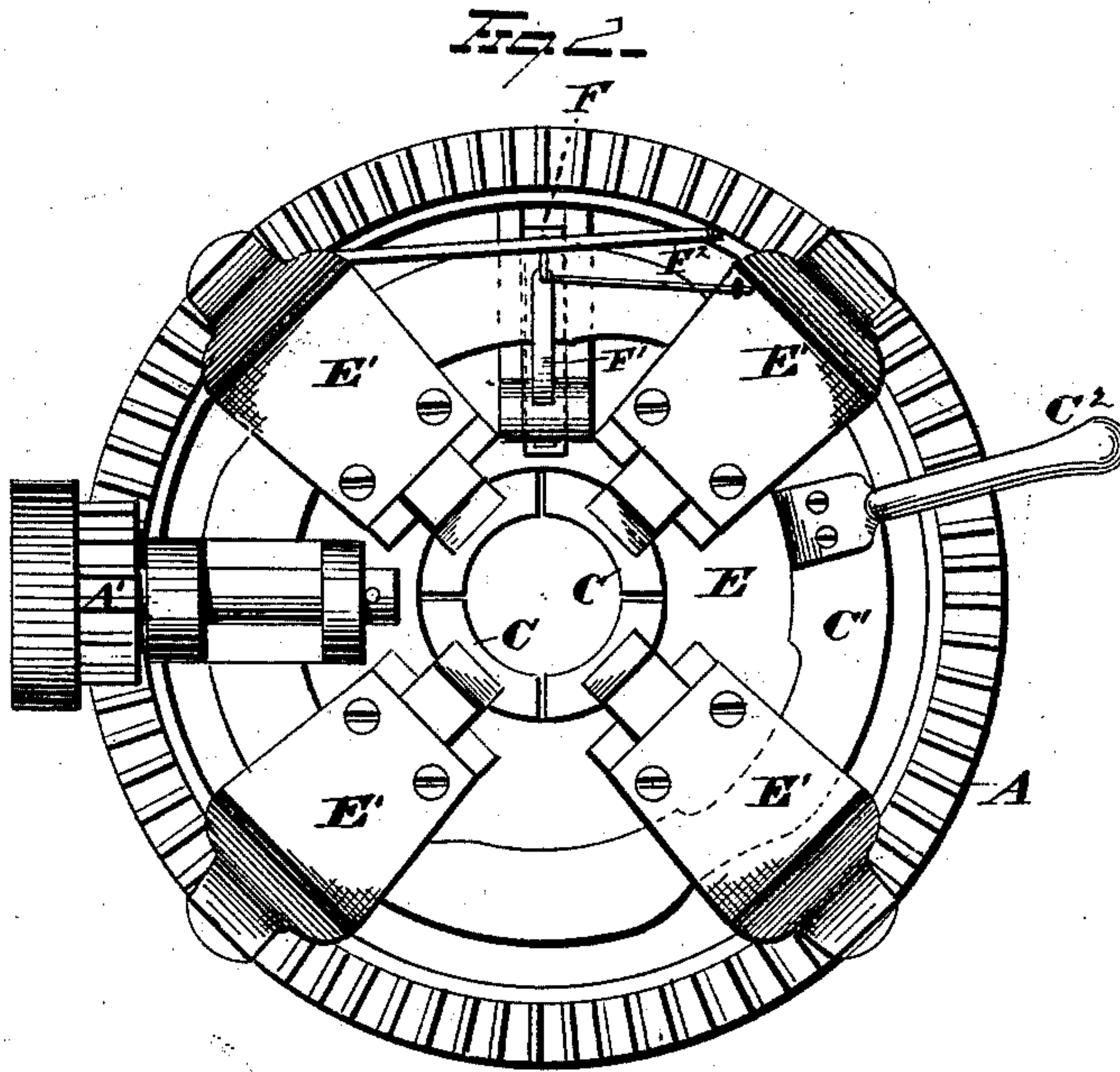
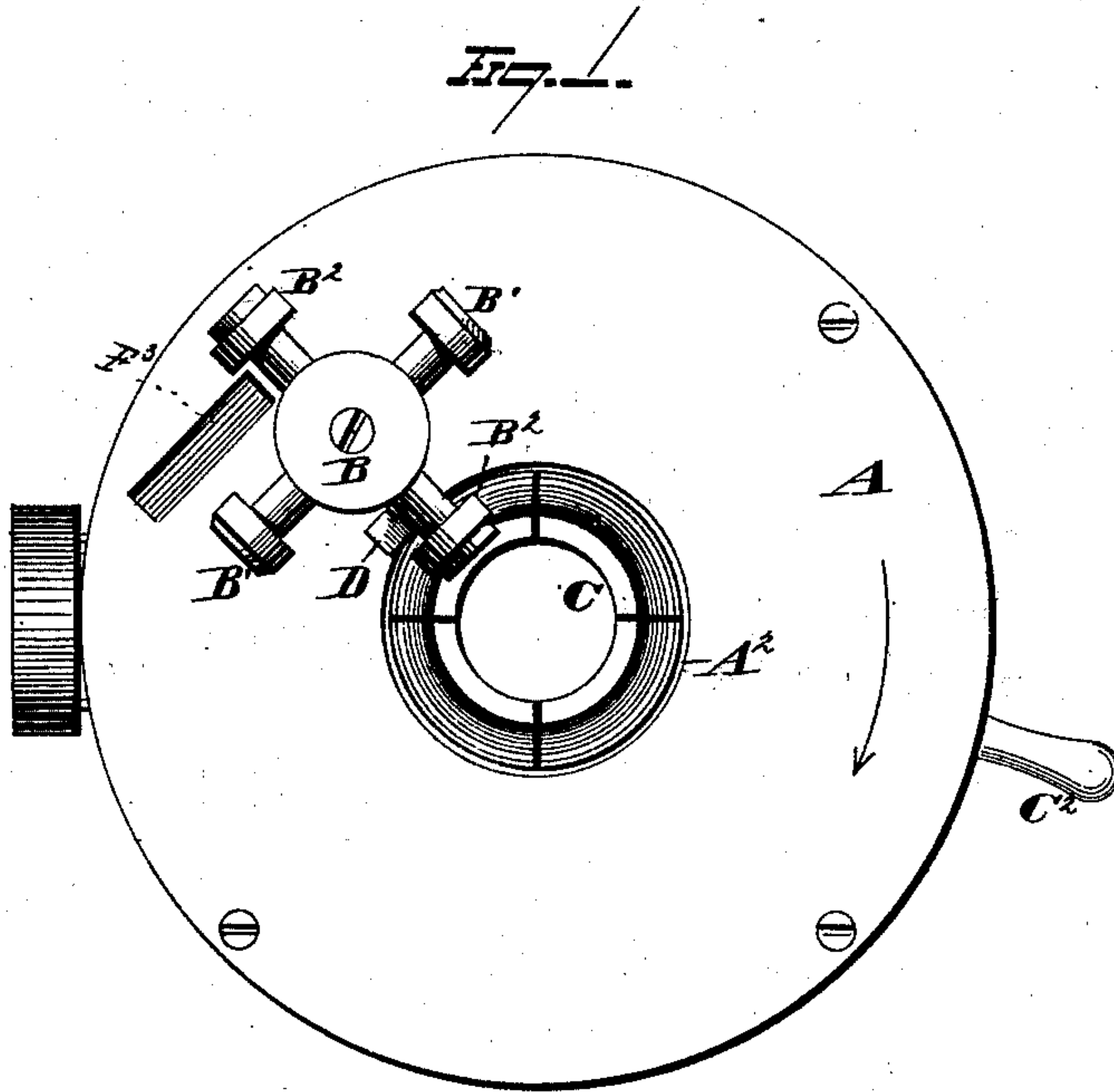


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Machine for Jointing Sections of Pipe.

No. 198,729.

Patented Dec. 25, 1877.

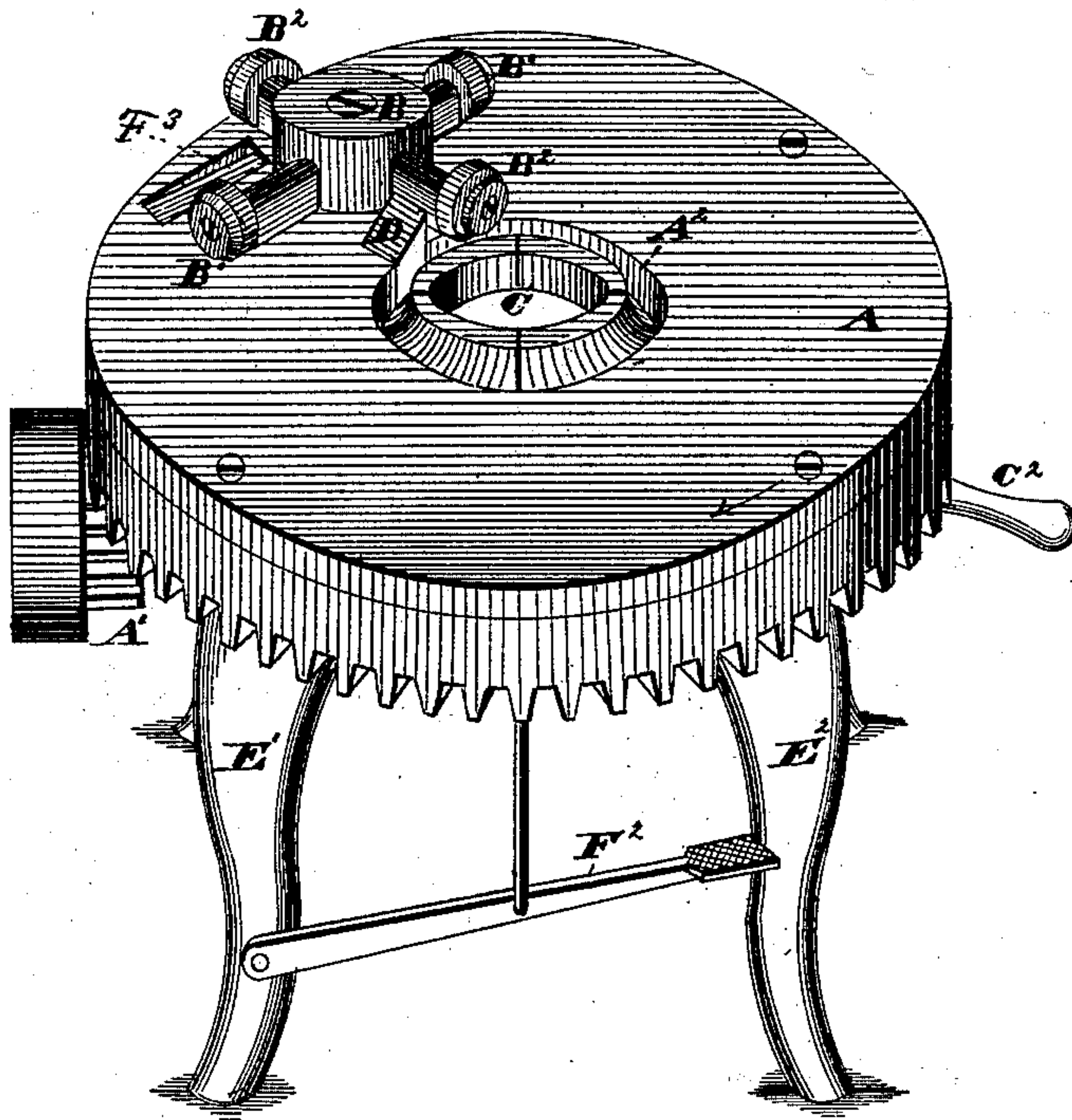


WITNESSES  
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*A. W. Bright*

INVENTOR.  
*M. W. House*  
By *Seagett & Seagett*  
ATTORNEYS

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Fig. 3.



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Fig. 4.

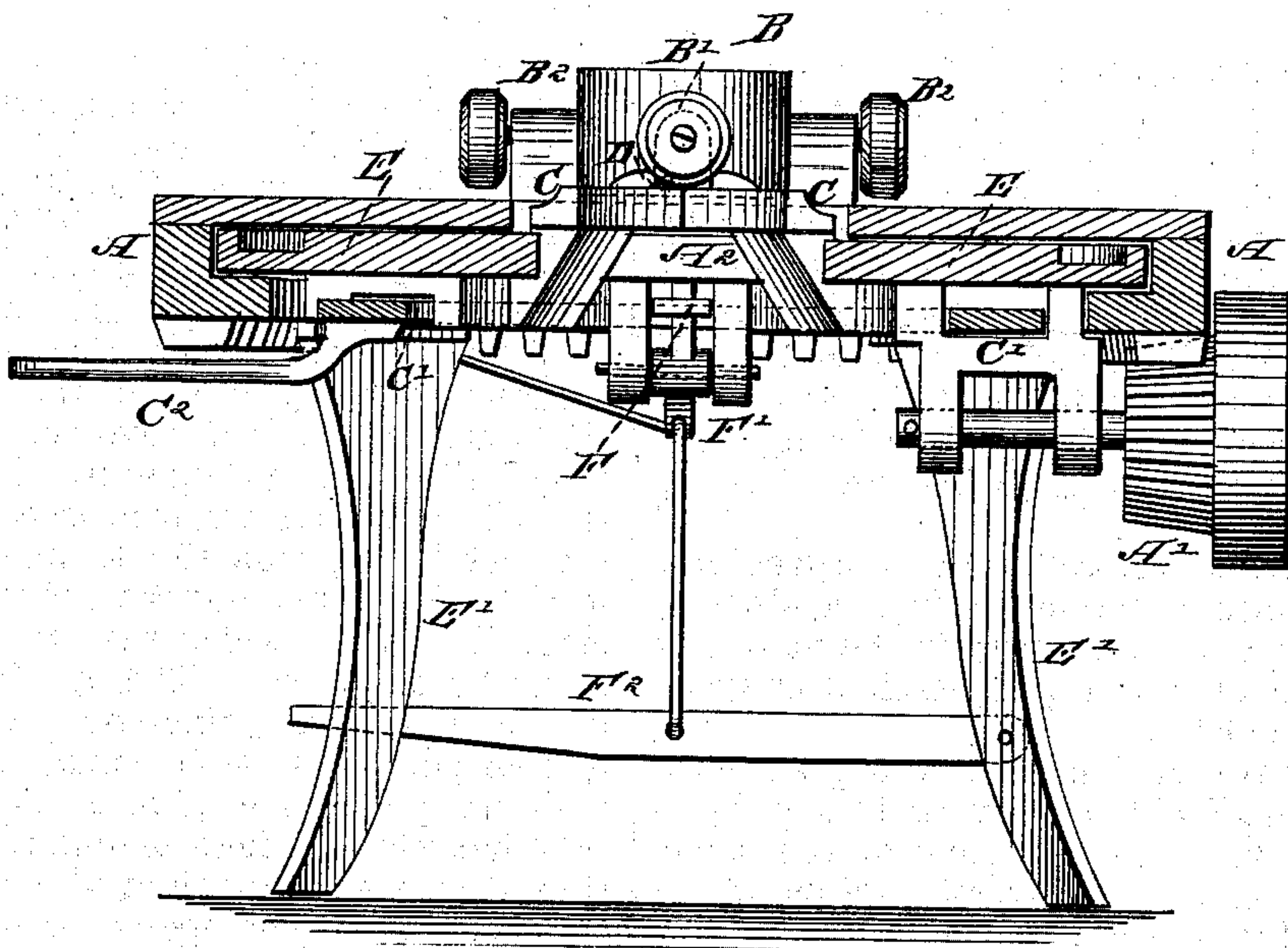
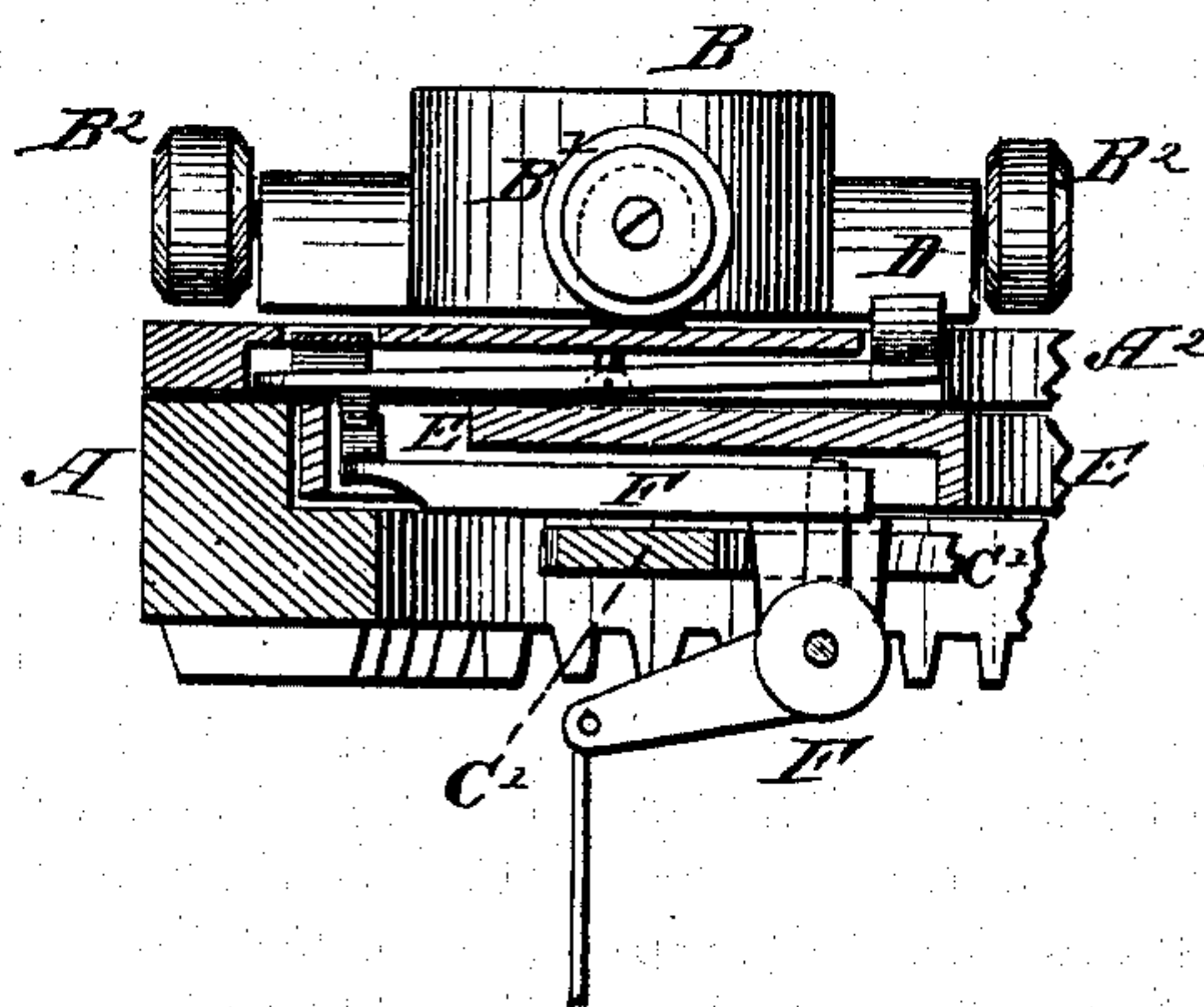


Fig. 5.



Witnesses:

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# UNITED STATES PATENT OFFICE.

MARK W. HOUSE, OF CLEVELAND, OHIO, ASSIGNOR TO HOGEN ELBOW COMPANY, OF SAME PLACE.

## IMPROVEMENT IN MACHINES FOR JOINTING SECTIONS OF PIPE.

Specification forming part of Letters Patent No. **198,729**, dated December 25, 1877; application filed October 29, 1877.

*To all whom it may concern:*

Be it known that I, MARK W. HOUSE, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Machines for Jointing Sections of Pipe; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improved machine for jointing sections of pipes made from sheet metal; and it consists in the following parts and combinations, as hereinafter specified and claimed.

In the drawings, Figure 1 is a plan view of my device; Fig. 2, an inverted view thereof; Fig. 3, an isometric view of the same. Fig. 4 is a vertical transverse section of the machine. Fig. 5 is a detached sectional view of a part of the machine.

A is a revolving table, carrying a revolving table-holder, B. The table A is turned, through the agency of a pinion, A<sup>1</sup>, engaging with gear-teeth upon the periphery or under side of the table A. In said table is made a central opening, A<sup>2</sup>, for the accommodation of the pipe-sections to be jointed and the clamping device that holds the pipe during the operation of making the joint. This clamping device C is made in two, three, four, or more sections, and these sections are adapted, by suitable mechanism, to gripe or release the inclosed pipe, as may be necessary. I have a simple and effective method of operating said clamp, which is by the use of a partially-rotating cam-ring, C<sup>1</sup>, moved by a handle, C<sup>2</sup>, or any suitable attachment. The operation of this cam-ring C<sup>1</sup> upon the sections of the clamp C is to simultaneously separate or unite them, and thus open or close said clamp, and gripe or release the inclosed pipe-section, as it is turned one way or the other.

The revolving tool-holder B, which is attached to and carried by the revolving table A, is adapted to carry one, two, or more sets

of rotating dies or rollers. For use in making pipe-sections a "set" consists of one coaxing and one finishing die. In the drawings are shown two coaxing-dies, B<sup>1</sup>, and two finishing-dies, B<sup>2</sup>, alternating with each other, constituting two sets of jointing-tools.

In the operation of the machine the clamp C is stationary; likewise, therefore, the pipe-sections held by it while the table A and the jointing-tools are revolved around said pipe while operating upon it. On account of this peculiar operation it is necessary that the tools while in action should be held to their work, and for this purpose I provide an abutment, D, against which the arm of any operating-die shall rest. This abutment I make in the form of a spring-latch, beveled upon its rear portion, so as to yield, and allow any tool-arm to pass over it in a backward direction, but which, unless manually or automatically depressed and removed, will act to prevent the forward or operating motion of any tool-arm.

I have provided means whereby the abutment D may be either manually or automatically operated.

It will be observed that the table A rests and revolves upon a stationary table, E, which is supported by the legs E'. To this stationary table I attach a sliding bar, F, which, when in one position, will operate to depress and release the abutment D, and when in another position will not operate at all upon said abutment. The bar F is moved through the agency of a bell-crank, F<sup>1</sup>, and this bell-crank is operated by any suitable treadle or handle, F<sup>2</sup>. A spring, F<sup>3</sup>, retains the bar F in its position to trip the abutment D at every revolution of the table A, and the treadle or handle F<sup>2</sup> is employed when it is desired that the bar F should not operate.

I do not limit myself to the construction of the yielding abutment D and the means for operating it, my invention being, broadly, to any abutment the equivalent of the abutment D, and any suitable means whatever whereby said abutment may be automatically or manually removed when any jointing-tool shall have completed its function, so that said tool may

be removed from operation upon the pipe-joint and the joint removed, or another tool be permitted to come into operative position.

In operation, the pipe is clamped and held stationary by the clamp C, and the joint to be made and finished is formed by the coaxing-die B<sup>1</sup> and the finishing-die B<sup>2</sup>. The coaxing-die is first applied, and, by the revolution of the table A, it is carried around and made to operate upon the pipe-joint. If a single revolution of this die accomplishes the desired result, the bar F will be permitted automatically to trip the abutment D, which has thus far been holding the coaxing-die to its work, and permit said coaxing-die to be moved out of the way, and the finishing-die B<sup>2</sup> brought into play. If, however, one revolution of the coaxing-die has not accomplished the desired result, the handle or treadle F<sup>2</sup> is operated, and the bar F thus prevented from tripping the abutment D, which thus continues its work of holding the coaxing-die to its work for another revolution. Thus it will be seen that any die may be caused to operate until it has done its work, when it can be automatically released.

My machine is so constructed that any length of pipe may be jointed by it. It is susceptible of operating in either a horizontal or vertical position, as may be desired, without the necessity of any material modification, excepting in the manner of its support.

What I claim is—

1. The revolving table A, carrying the rotating tool-holder B, substantially as and for the purpose specified.
2. The revolving table A and rotating tool-holder B, in combination with the clamp C, substantially as and for the purposes shown.
3. The revolving table A and abutment D, in combination with the arm or holder of a jointing-tool, substantially as and for the purpose shown.
4. The yielding abutment D, substantially as and for the purpose shown.
5. The yielding abutment D, in combination with the sliding bar F, substantially as and for the purposes specified.

6. In a machine for joining pipe-sections, the combination, with the yielding abutment, of mechanism for operating it, substantially as described.

7. The combination, with the central stationary clamp, of the table surrounding it, and provided with gear-teeth upon its periphery or lower surface, whereby it may be revolved by a suitable pinion, substantially as described.

8. The combination, with the central clamp and the surrounding table, of the revolving tool-holder and suitable dies or tools for making a pipe-joint, substantially as described.

9. The combination, with the revolving table A and tool-holder B, of the yielding abutment D and sliding bar F, substantially as and for the purpose shown.

10. In a machine for jointing sections of pipe, the combination, with the revolving table and the sectional clamp, of the tool-holder, adapted to carry one or more sets of dies or tools, substantially as described.

11. The combination, with the revolving table, of the central clamp, composed of concentric sections, substantially as described.

12. The combination, with the revolving table and the central clamp, made in two or more sections, of the eccentric-ring and suitable mechanism for operating the same, substantially as described.

13. The combination, with the revolving table and the central sectional clamp, of the eccentric-ring and the actuating-handle, substantially as described.

14. The combination, with the revolving table and tool-holder, of the yielding abutment and mechanism, as described, for operating the same, substantially as described.

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

MARK WIGGINS HOUSE.

Witnesses:

F. TOUMEY,  
W. E. DONNELLY.