

J. W. Thompson,

Cherry Stoner,

N^o 59,321.

Patented Oct. 30, 1866.

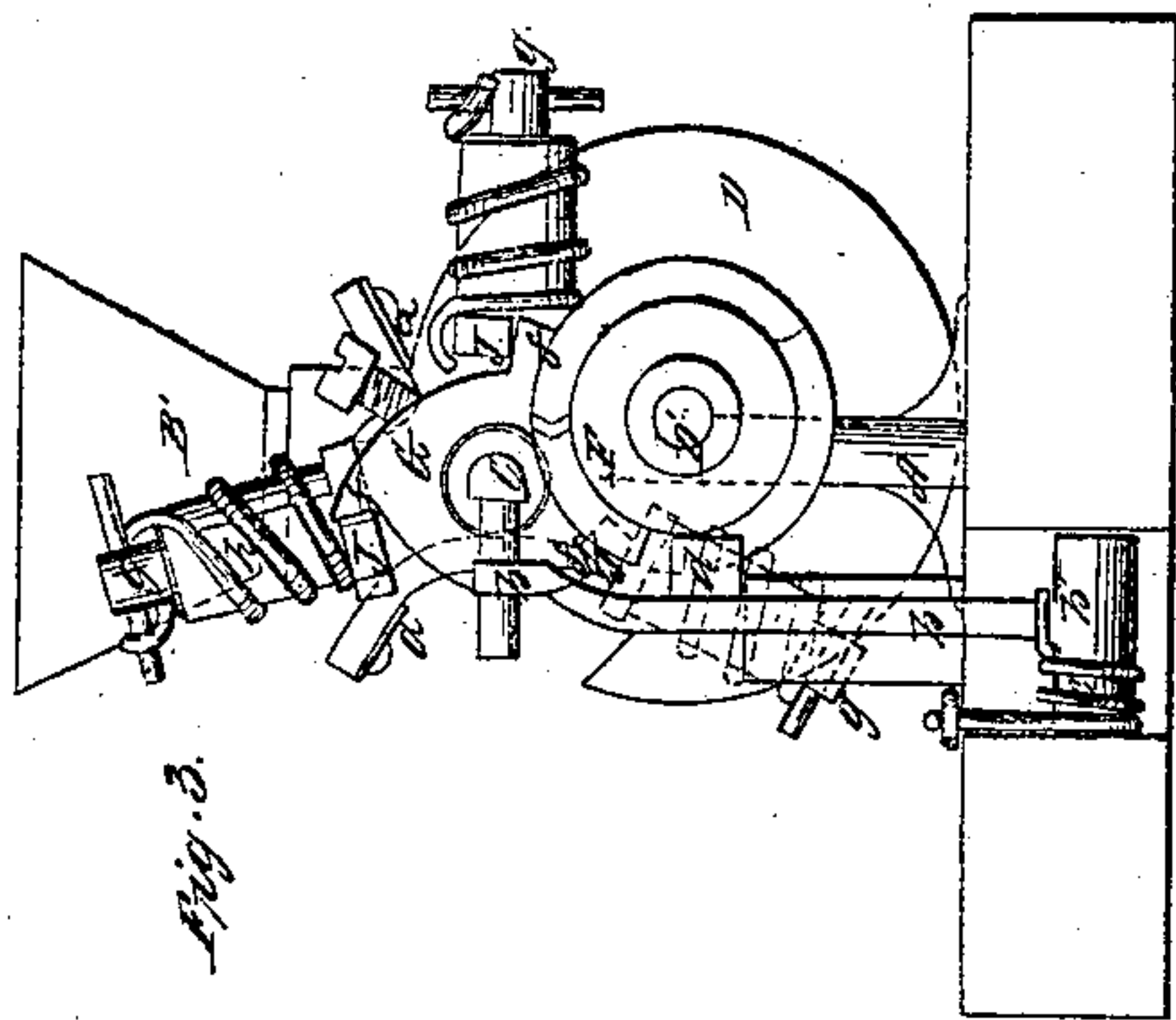


Fig. 6.

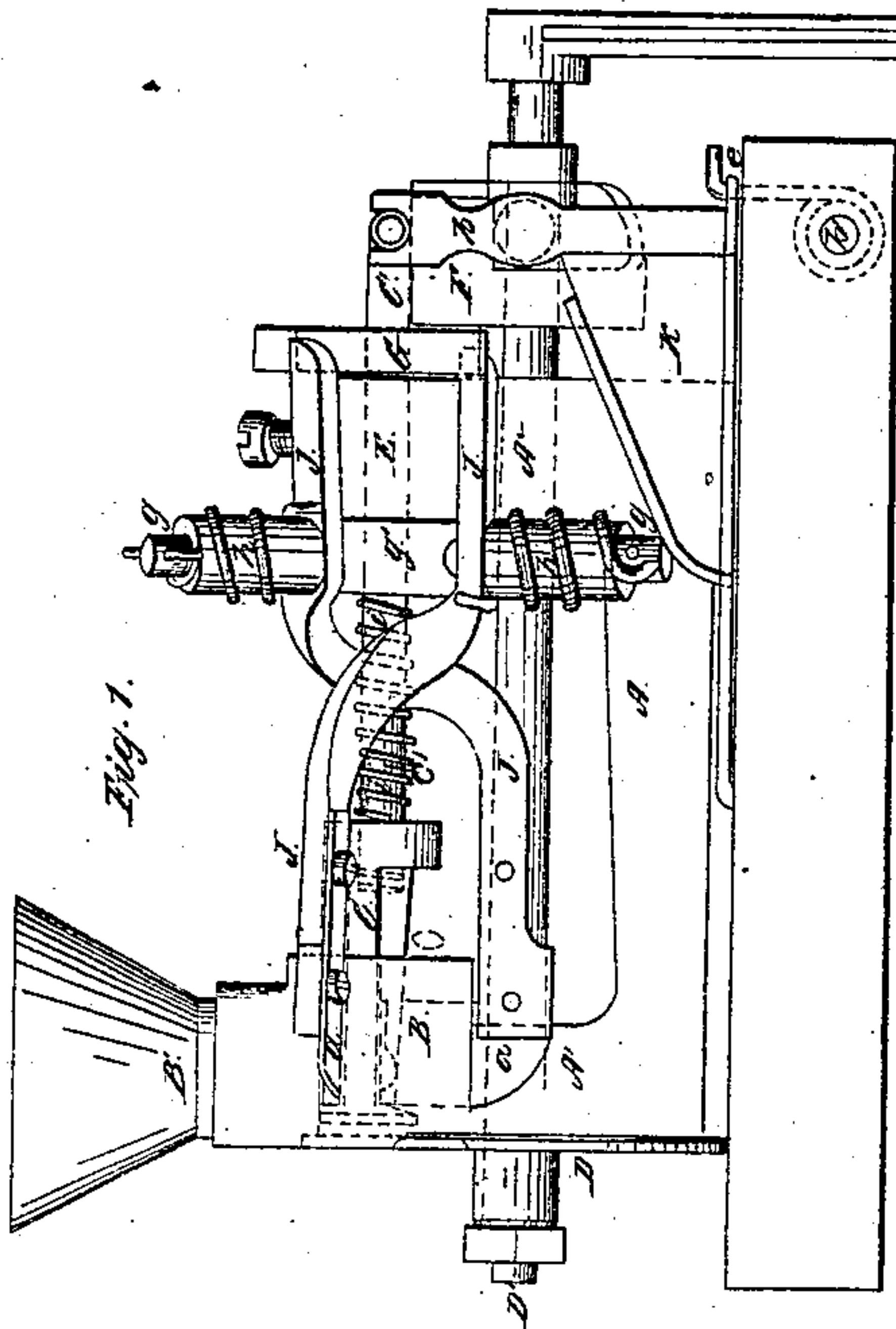
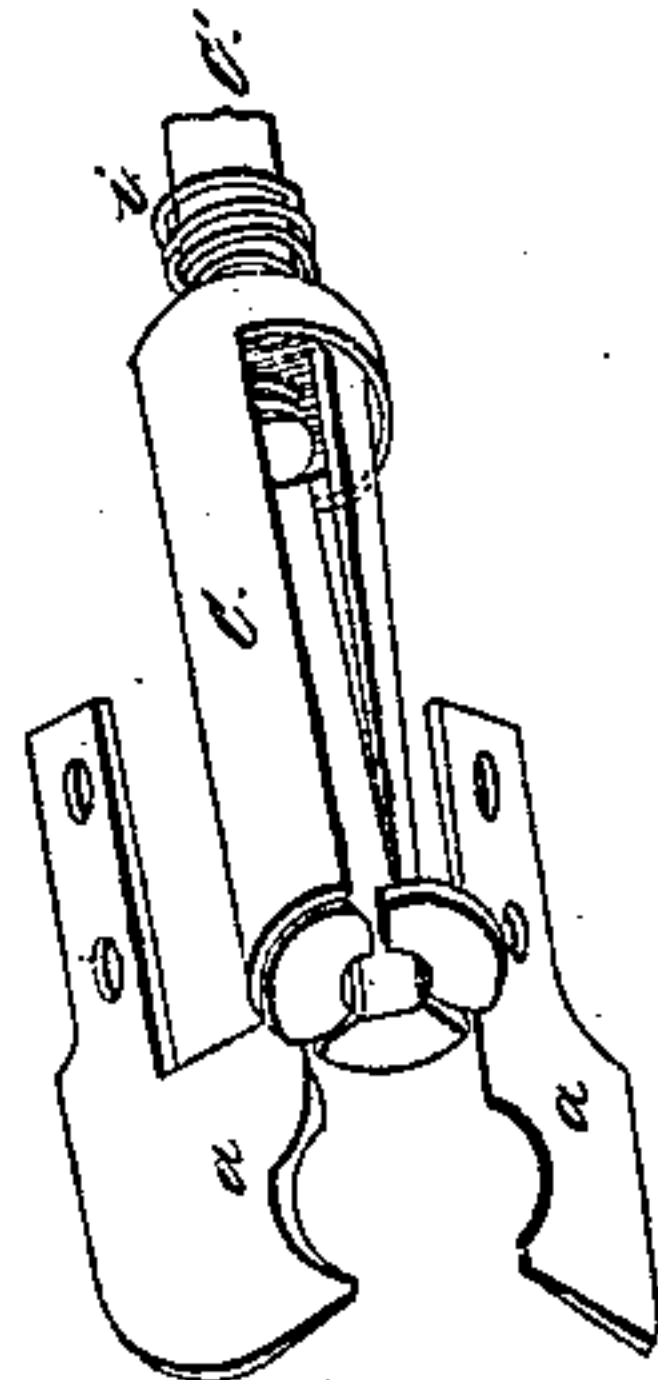


Fig. 4.

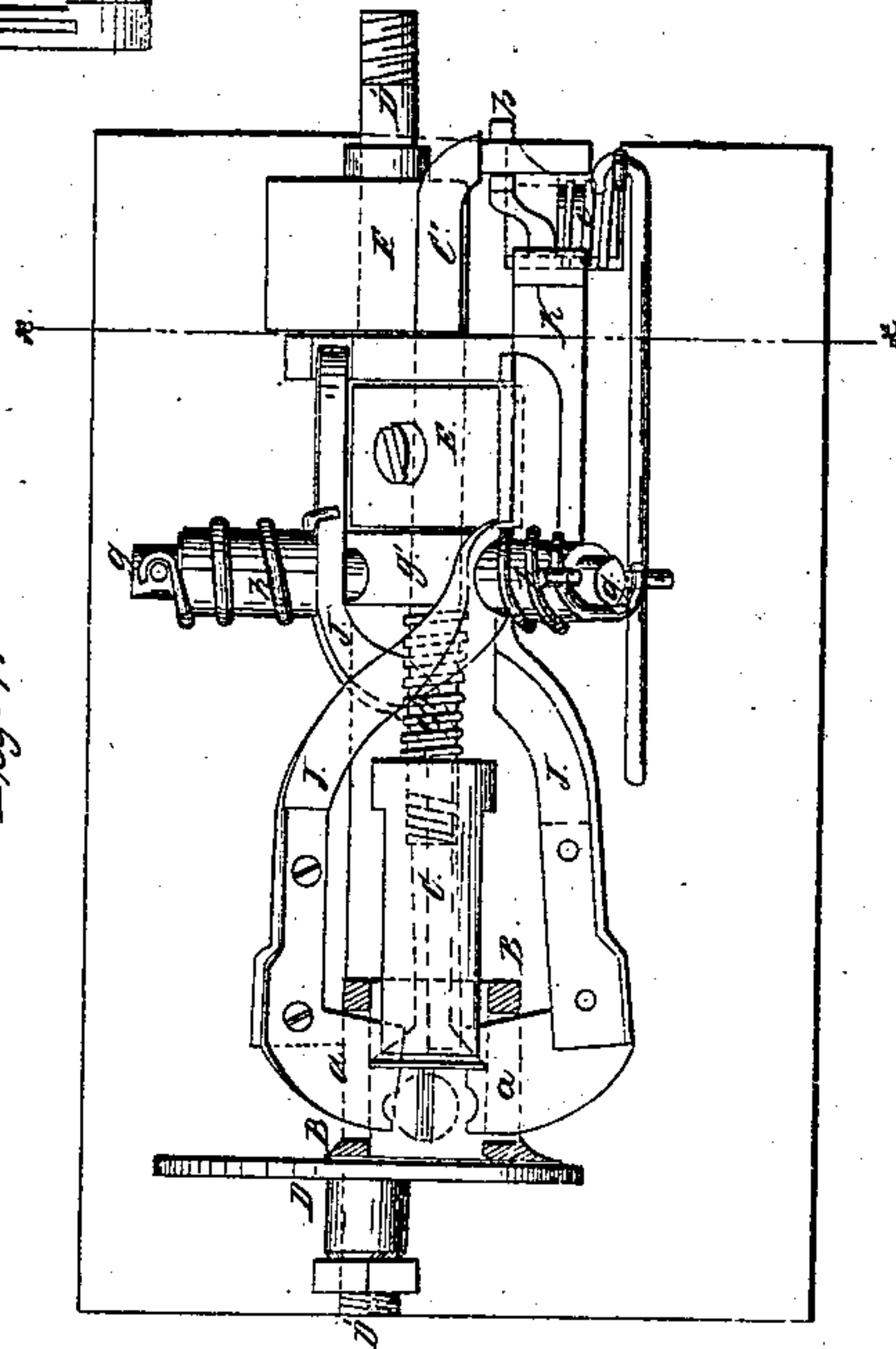


Fig. 2.

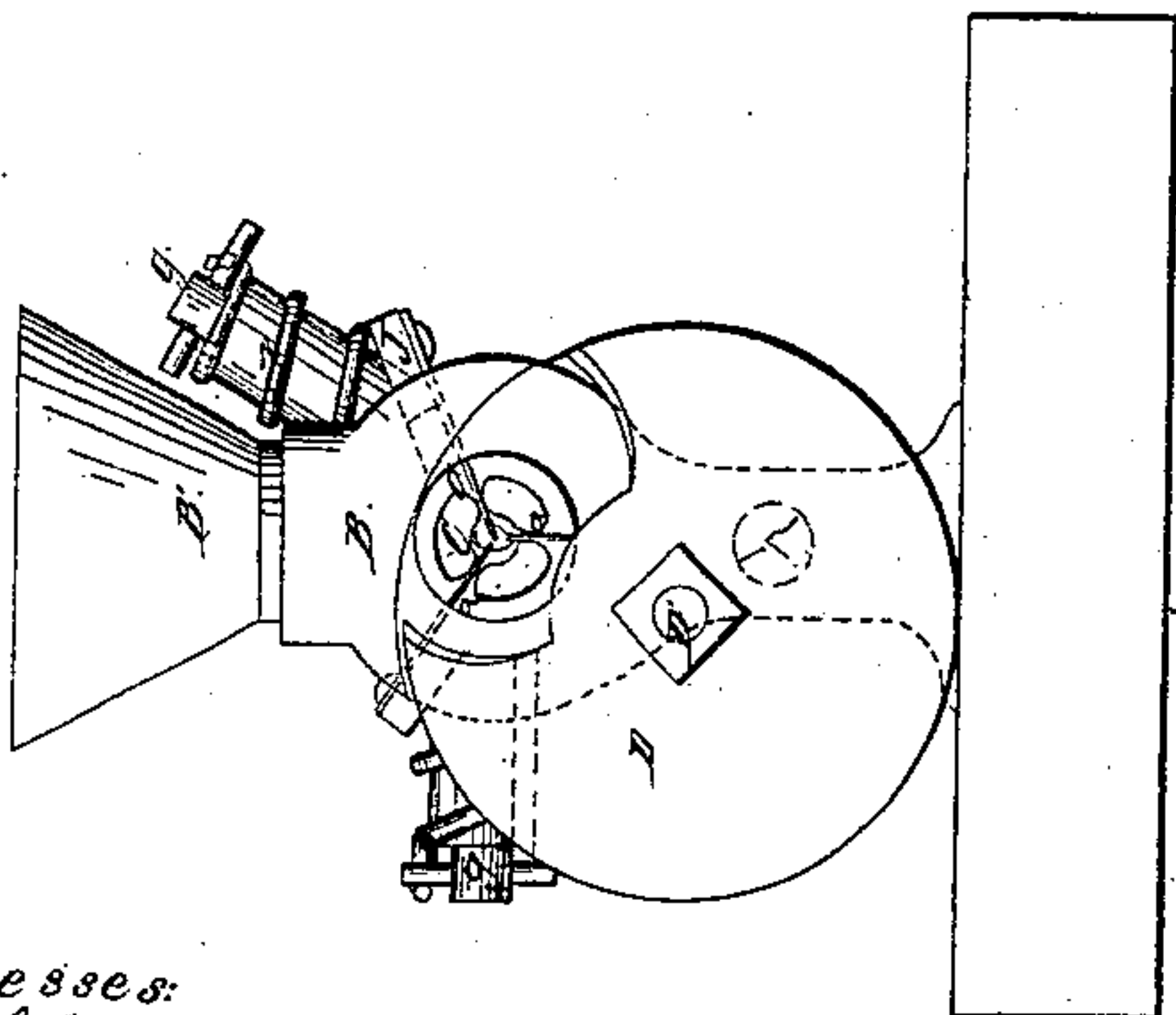
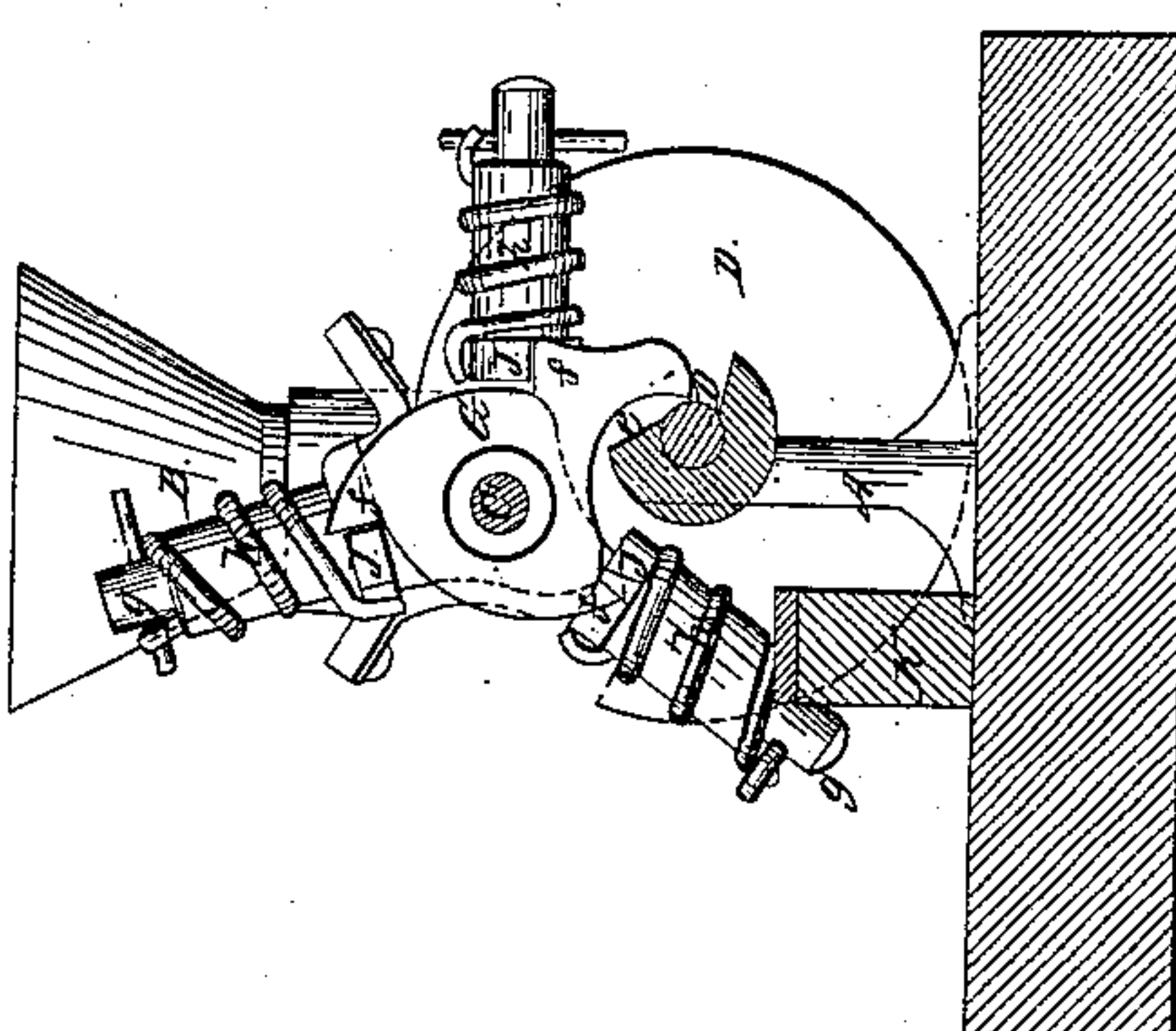


Fig. 5.



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UNITED STATES PATENT OFFICE.

J. W. THOMPSON, OF SALEM, OHIO, ASSIGNOR TO HIMSELF AND H. BARNABY, OF SAME PLACE.

IMPROVED CHERRY-STONER.

Specification forming part of Letters Patent No. 59,321, dated October 30, 1866.

To all whom it may concern:

Be it known that I, J. W. THOMPSON, of Salem, Columbiana county, State of Ohio, have invented a new and Improved Cherry-Stoner; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is an elevation of one side of the machine. Fig. 2 is an elevation of the front end of the same. Fig. 3 is a rear end elevation. Fig. 4 is a plan view with a portion of the receiver broken away to show the stripper and the gripping-knives. Fig. 5 is a transverse section through Fig. 4, taken in the vertical plane indicated by red line *x x*. Fig. 6 is a perspective view of the stripper and two of the gripping-knives.

Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to stone cherries by means of devices which will penetrate the cherries and hold the stones while a plunger or stripper ejects the pulps from the machine, as will be hereinafter described.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

In the accompanying drawings, A represents the frame of the machine, which is constructed with a perpendicular standard at each end. The standard A' has a hollow cylinder, B, formed on its upper end, into which the cherries are fed, one at a time, from a hopper, B'. This cylinder B is arranged in a horizontal position for receiving the horizontal stripper C, and it is slotted longitudinally at three points for receiving through it the three vibrating knives *a a a*, which gripe and hold the stones of the cherries while the stripper ejects the pulps.

The vertical front face of the standard A' is planed for receiving a circular plate, D, which is constructed with an opening through it. This plate D is applied to a horizontal rotary shaft, D', so as to turn with this shaft and close the end of the cylinder B, and keep it closed until the gripping-knives close upon and hold the cherry-stone preparatory to the forward movement of the stripper, when the

opening in this circular plate D will be brought opposite the open end of cylinder B, to allow of the ejection of the pulp of the cherry.

The standard A², at the opposite end of the frame A, has an enlarged head, E, formed on its upper end, through which passes the shaft C' of the stripper C, which shaft is secured into the rear end of the latter, and attached at its rear end to the upper forked end of a vibrating arm, *b*, as shown in the drawings. The lever or arm *b* is secured at its lower end to a rock-shaft, *b'*, having its bearings in the base of the machine, which rock-shaft has a stout spring coiled around it, as shown at *c*, Figs. 3 and 4, for the purpose of thrusting the stripper C forward with a quick movement.

The arm *b* has a stud or friction-roller, *d*, projecting from it, which is held in contact with a rotating cam, F, on shaft D' by the spring *c*. This cam F is used for retracting the stripper C after every forward stroke thereof, and for releasing this stripper at the proper times for allowing it to eject the pulps of the cherries from the cylinder B.

In front of cam F, and keyed on the shaft D', is a toe, *e*, which, at every revolution of this shaft D', moves a cam-plate, G, a part of a revolution. This cam-plate is applied upon the reciprocating stripper-shaft C', as shown in Fig. 5, and it is constructed with three toes or cams, *f f f*, which respectively act upon the knife-levers J J J of the gripping-knives *a a a*. These knife-levers are pivoted to radial studs *g g g*, which project from a collar, *g'*, that is secured in a suitable manner to the forward end of the standard A², and that receives through its center the stripper-shaft C', as shown in Figs. 1 and 4. The rear arms of the levers J are held firmly in contact with the toes *f* of the plate G by means of springs *h*, which are coiled around the studs or fulcrum-pins *g*, which springs cause the knives *a* to close suddenly upon the cherries in chamber B when the cam-plate G is released from the toe *e*.

The movements of the knives are so timed with relation to the movements of the stripper that the former open, as shown in Fig. 4, a little before or simultaneously with the receding of the stripper, and close just before this stripper advances.

The knives *a* are arranged to vibrate in planes radiating from the axis of the cylinder B, and when they are open, as shown in Fig. 4, sufficient space is left between their cutting-edges for the reception of one cherry from the hopper B'. When the knives close, which they do with a quick movement, they cut through the pulp of a cherry and receive the seed or stone between their notches, so that the pulp shall be stripped from the stone thus held by the stripper C. The stripper C is so constructed that when it advances it will strip the pulp from the knives and eject it from the machine, at the same time receiving within it the cherry-stone, which will be discharged at the rear end of the cylinder B. This stripper consists of three segments, arranged near together, with a central opening through them, which segments are secured to the ends of springs, as shown in Figs. 1 and 6, that allow them to expand and receive behind them the cherry-stones.

If desirable, a spring, *i*, may be coiled around the shaft C', between the end of the stripper C and the standard A', for increasing the force of the former when it is allowed to make its forward stroke; and to prevent injurious shocks to the machine, the rubber block K is used for receiving the blows of the arm *b*.

I may employ more or less than three knives, *a*, and therefore do not confine myself to this number.

The rotating plate D may be dispensed with and a vibrating shutter or gate used in its stead.

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

1. The combination of the gripping-knives *a a* with a stripper, C, arranged to operate substantially as described.

2. The rotating plate D upon the shaft D', in combination with the cherry-receptacle B and a stripper, C, substantially as described.

3. The construction of the pivoted knives *a* with notches in them for receiving and holding the cherry-stone during the stripping of the pulp from it, substantially as described.

4. The construction of the stripper C of spring-segments, adapted for receiving through them the cherry-stones and discharging the same at the opposite end of the cylinder to that from which the pulps are discharged, substantially as described.

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Witnesses:

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