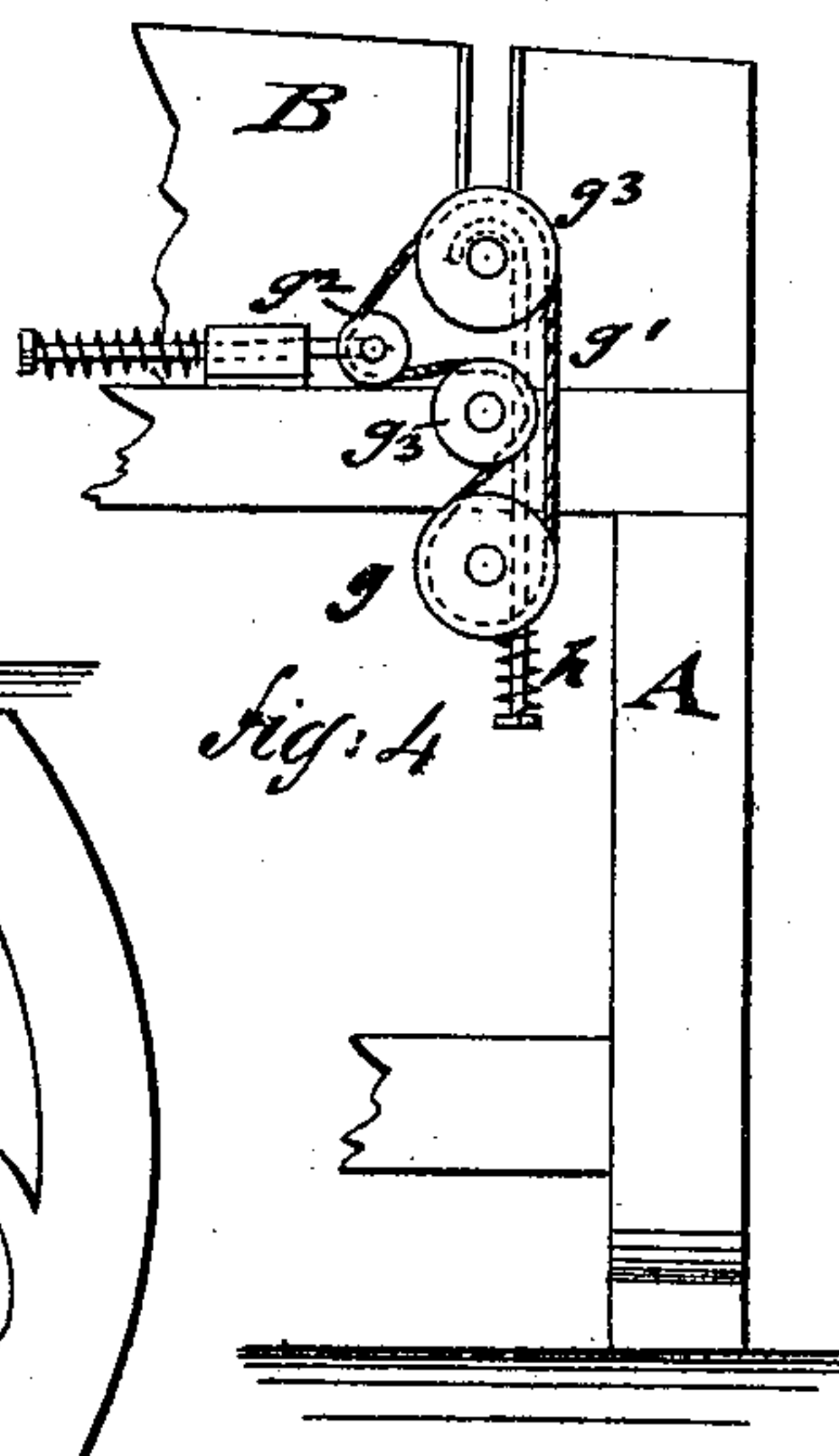
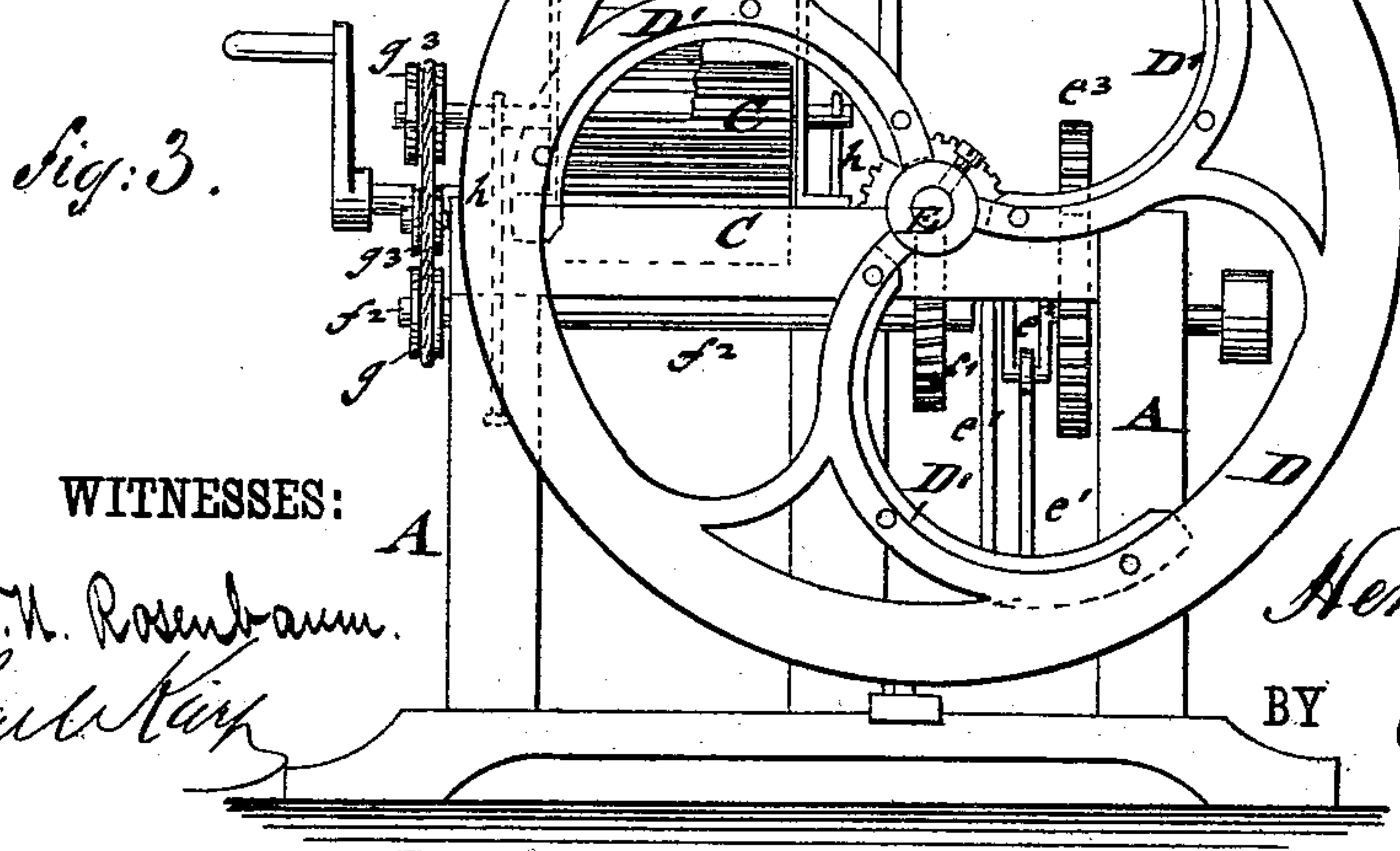
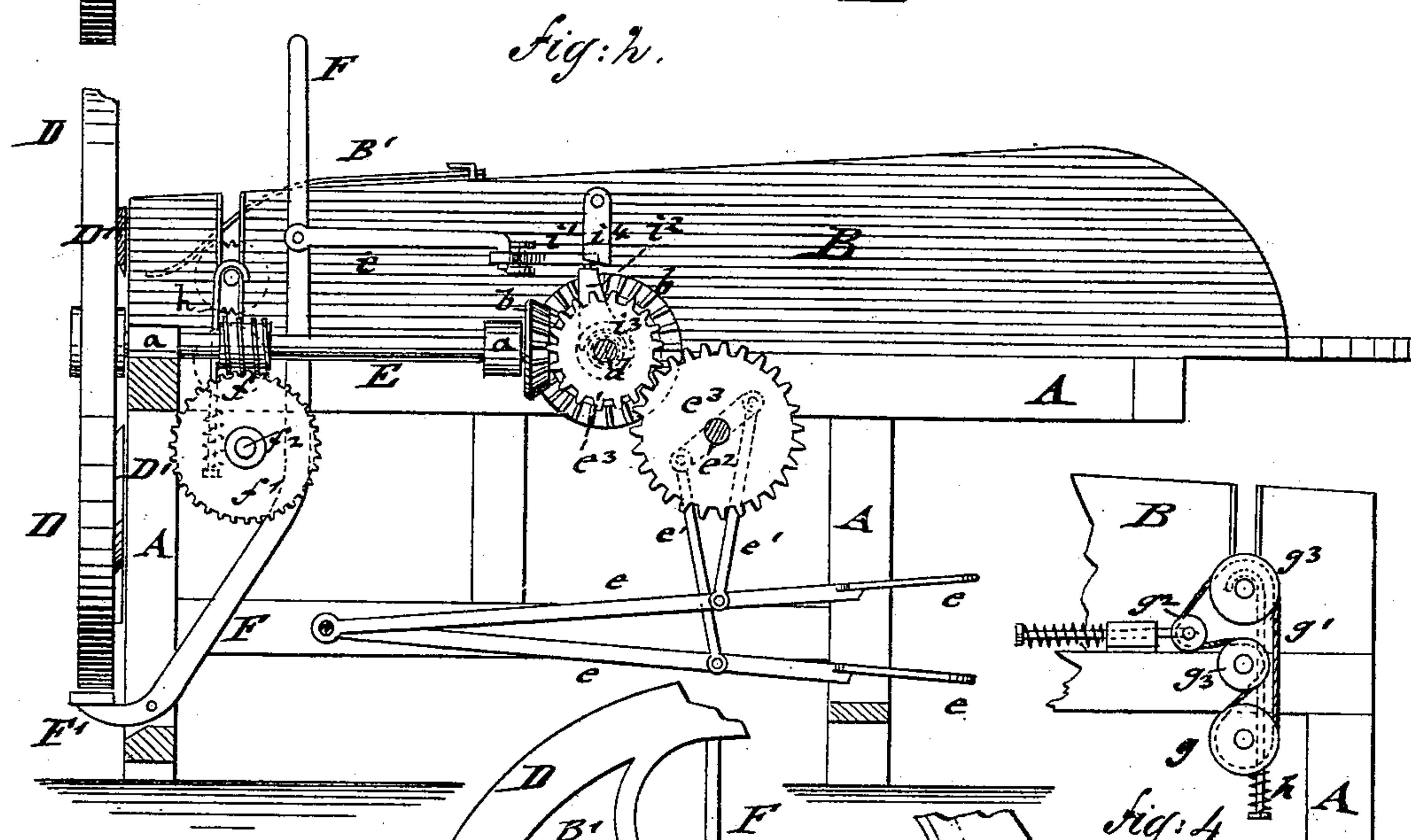
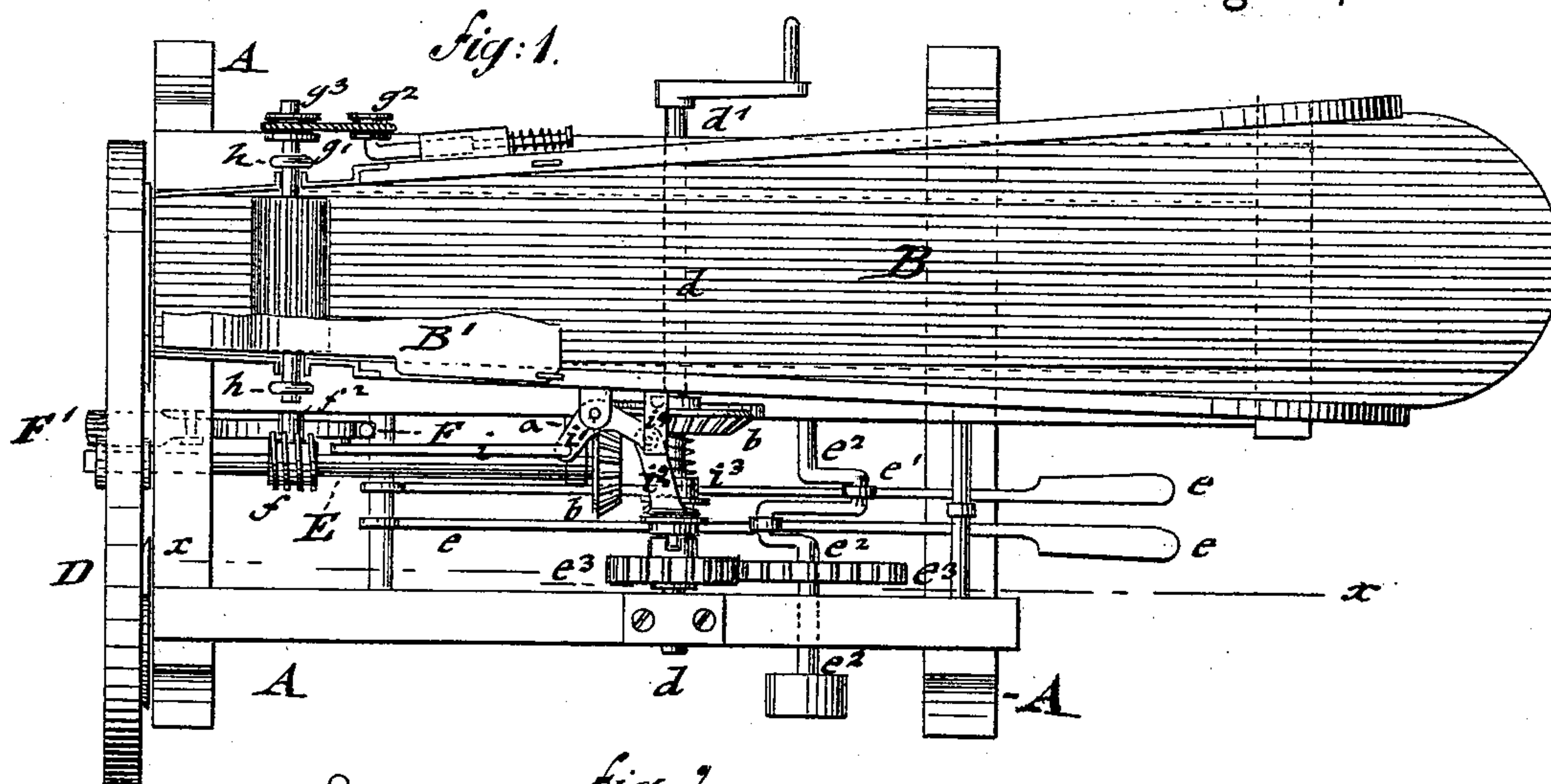


(No Model.)

H. SCHWOBE.
FEED CUTTING MACHINE.

No. 262,699.

Patented Aug. 15, 1882.



WITNESSES:

J. H. Rosenbaum.
 Carl Kopp

INVENTOR

BY Henry Schnobe
Paul Grefel.

ATTORNEY

UNITED STATES PATENT OFFICE.

HENRY SCHWOBE, OF SHERWOOD, WISCONSIN.

FEED-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 262,699, dated August 15, 1882.

Application filed April 7, 1882. (No model.)

To all whom it may concern:

Be it known that I, HENRY SCHWOBE, of Sherwood, in the county of Calumet and State of Wisconsin, have invented certain new and useful Improvements in Feed-Cutting Machines, of which the following is a specification.

This invention has reference to improvements in feed-cutting machines whereby they can be worked by hand, foot, or power, the motion of the machine being instantly interrupted whenever desired, and the feed cut into longer or shorter pieces.

In the accompanying drawings, Figure 1 represents a plan of my improved feed-cutting machine. Fig. 2 is a vertical longitudinal section on line *x x*, Fig. 1. Fig. 3 is an end view of the same, and Fig. 4 is a detail view of the mechanism for imparting motion to the feed-rollers.

Similar letters of reference indicate corresponding parts.

A in the drawings represents the supporting-frame of my improved feed-cutting mechanism; B, the feed-box, which is constructed in the usual manner, tapering from the rear toward the front; C C, the feed-rollers, which are arranged transversely across the feed-box, near the mouth of the same, the lower one being arranged below the upper, above the bottom of the same.

D is the fly-wheel, which carries the curved cutting-knives D', that are attached to arms of the fly-wheel by means of screws in such a manner as to permit the adjustment of the cutting-knives close to or away from the edge of the feed-box B, the curved knives exerting a shear cut upon the feed, as customary in machines of this kind. The shaft E of the fly-wheel D is supported in bearings of the frame A, and receives motion by bevel-gears *b b*, applied to a transverse shaft, *d*, said shaft carrying at one end a hand-crank, *d'*, for imparting motion thereto.

If the feed-cutting machine is to be worked by foot-power, two pivoted treadles, *e e*, are operated by the feet, said treadles being connected by crank-rods *e'* with an intermediate double crank-shaft, *e''*, which transmits rotary motion by a set of intermeshing gear-wheels, *e''*, to the transverse shaft *d*. The double crank-

shaft *e''* is also provided at its outer end with a pulley, so as to apply a belt thereto whenever steam or other power is available for running the machine. A worm-wheel, *f*, on the shaft E of the fly-wheel D meshes with a gear-wheel, *f'*, and imparts rotary motion to a transverse shaft, *f''*, arranged below the feed-box. The shaft *f''* carries at its opposite end a sprocket-wheel or pulley, *g*, which imparts, by a chain or belt, *g'*, that is tightened by a spring-pressed idler, *g''*, motion to pulleys *g''' g'''* on the ends of the shafts of the feed-rollers C, as shown in Fig. 4. The feed-rollers C C are pressed tightly together by rods *h*, which are applied by their upper hook-shaped ends to the shaft of the upper feed-roller, guided in holes of the frame, and forced downward by spiral springs interposed between the frame and the lower enlarged ends of the rods *h h*, as shown clearly in Figs. 2 and 4. The shaft of the upper roller C is guided in slots of the feed-box B, the latter being covered at its mouth by a top plate, B', the front end of which is curved downward, so as to deliver the feed in compressed state to the action of the cutting-knives D'. For the purpose of cutting the feed long or short the lower sprocket-wheel or pulley, *g*, is exchanged, a larger one being used for cutting long feed, a smaller one for short feed.

A hand-lever, F, which is fulcrumed near its lower end to the frame A, is connected near its upper end by a pivoted arm, *i*, with a bell-crank lever, *i'*, that is fulcrumed to supporting-lugs of the feed-box B. The opposite end of the bell-crank lever *i'* is applied to a downwardly-extending fork, *i''*, that engages a clutch, *i'''*, on the transverse shaft *d*, said clutch being thrown by a spiral spring into gear with the transmitting gear-wheels *e'''* of the treadle-acted double crank-shaft *e''*. The lower end of the lever F is provided with a brake-shoe, F', which is applied by the action of the lever F to the circumference of the fly-wheel. By the same motion of the lever F the clutch is thrown out of gear with the motion-transmitting gear-wheels, so that thereby not only the motion is interrupted, but at the same time the fly-wheel quickly stopped by the brake action of the shoe applied thereto. When the lever F is released the spring of the clutch *i'''* throws the same into gear again and releases the brake-shoe from the

fly-wheel. The bell-crank lever i' is prevented by a stop, i^4 , from being moved too far by the spring of the clutch.

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

In a feed-cutting machine, the combination of the lever F, the pivoted arm i , a bell-crank lever, i' , the supporting-lugs, the fork i^2 , the clutch i^3 , the transverse shaft d , the spiral-
10 spring, transmitting gear-wheel e^3 , the double-

crank shaft e^2 , the brake F, the fly-wheel, and stop i^4 , substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

HENRY SCHWOBE.

Witnesses:

MICHEAL SCHNEIDER,
CHARLES GERMAN.