

E. DEWS.
SPINNING JACK.

No. 50,230.

Patented Oct. 3, 1865.

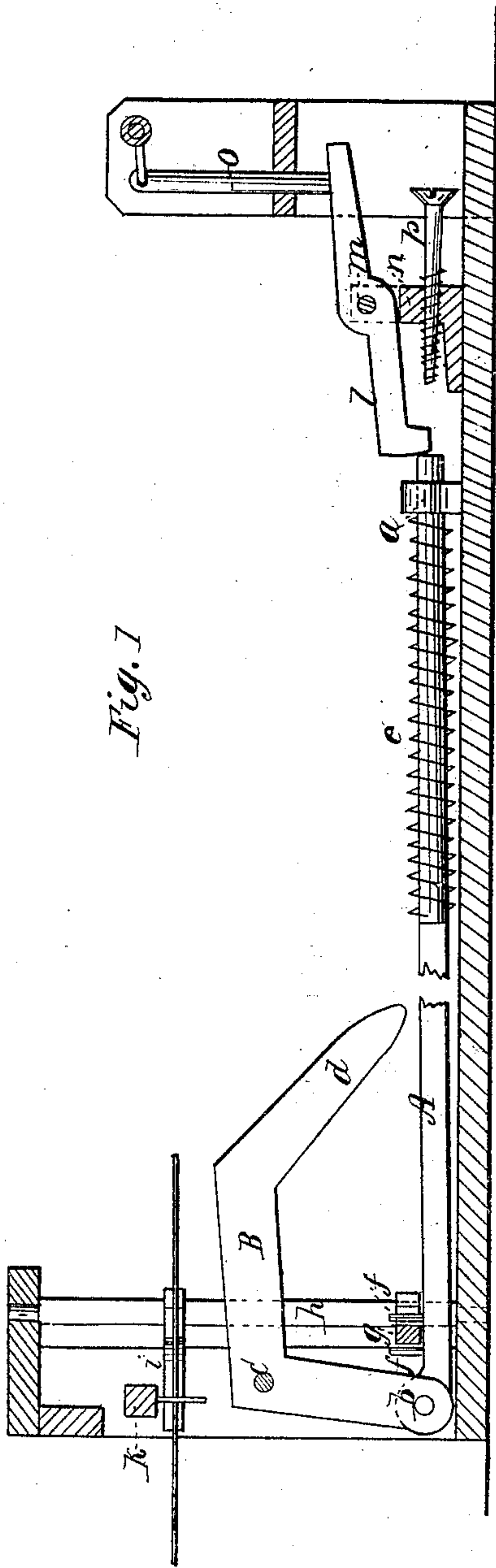


Fig. 1

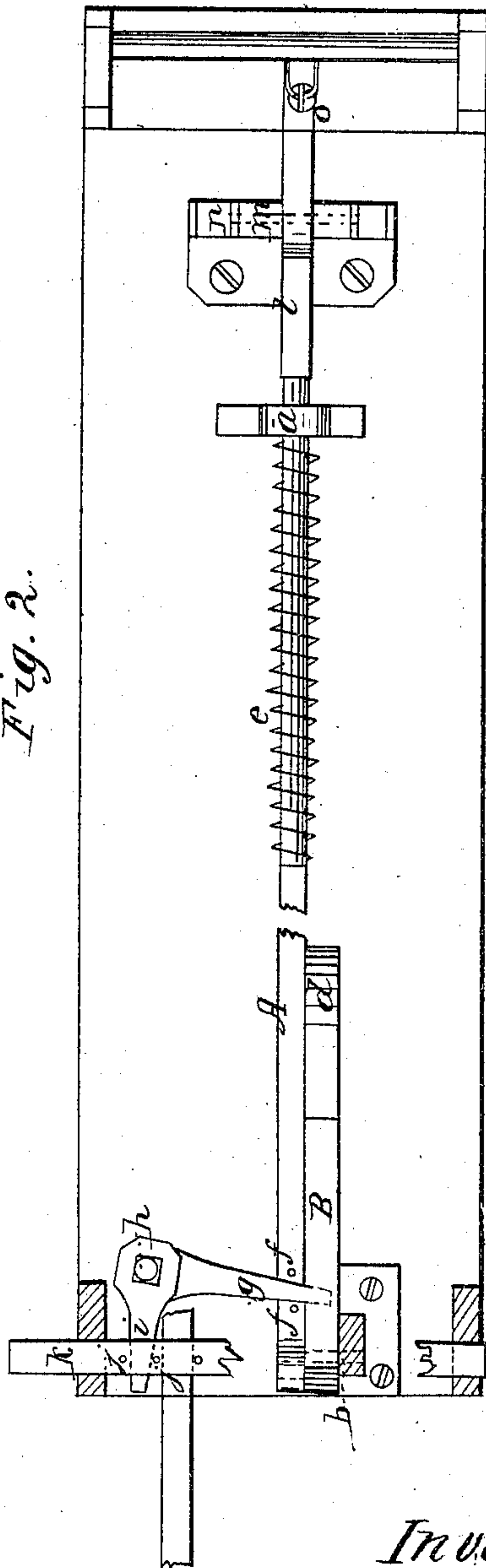


Fig. 2.

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UNITED STATES PATENT OFFICE.

EZRA DEWS, OF SOUTH BRITAIN, CONNECTICUT.

IMPROVEMENT IN SPINNING-JACKS.

Specification forming part of Letters Patent No. 50,230, dated October 3, 1865.

To all whom it may concern:

Be it known that I, EZRA DEWS, of South Britain, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Spinning-Jacks; 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.

Figure 1 represents a longitudinal vertical section of this invention. Fig. 2 is a plan or top view of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to an apparatus the object of which is to put friction upon the driving-pulley of the jack by sliding the belt partially upon it from the loose pulley, and thereby to assist the spinner in winding the yarn upon the bobbins. Said apparatus consists of a bell-crank cam-lever, one arm of which is hinged to a longitudinally-sliding rod which is subjected to the action of a spring, and the motion of which is governed by a regulating-screw, in combination with the belt-shipper, and with a catch and rod acting on said catch when the faller or coping wire is applied in such a manner that whenever the spinner applies the faller to the threads the catch is sprung, and by the action of the spring-rod the belt is shifted from the loose onto the fast pulley more or less, according to the position of the regulating-screw, and when the carriage is pushed home it strikes the bell-crank cam-lever and carries the spring-rod back, thereby shifting the belt back upon the loose pulley, and allowing the catch to drop behind the spring-rod, ready for the next succeeding motion of the carriage.

A represents a rod which extends alongside the railway on which the carriage moves, either between the rails or outside thereof, and which is guided by suitable brackets *a*, secured to the floor at convenient distances apart. That portion of said rod next to the fixed frame of the spinning-jack connect by means of a pivot with a bell-crank lever, B, which has its fulcrum on a pin, *c*, secured in a standard which is fast-

ened to the floor. The loose end of this bell-crank lever forms a cam, *d*, and a spring, *e*, which acts on the rod A, has a tendency to throw the same in the direction of the arrow marked thereon in Fig. 1 of the drawings, and thereby to raise the cam *d*.

From the rod A rise two pins, *f*, which straddle the outer end of an arm, *g*, mounted on a vertical rock-shaft, *h*, and another arm, *i*, extending from this rock-shaft, catches between two pins, *j*, secured in the belt-shipper K. If the rod A is in the position shown in the drawings it acts on the rock-shaft and on the belt-shipper in such a manner that the belt is thrown on the loose pulley, and whenever said rod is brought in this position a catch, *l*, drops behind its outer end and prevents it from following the action of the spring *e* until the catch is raised. Said catch is hung on a pivot, *m*, which has its bearing in a standard, *n*, rising from the floor, and its head is so much heavier than its tail that when the same is allowed to follow its own gravity it assumes the position shown in Fig. 1, retaining the rod A in its forward position and throwing the belt on the loose pulley.

The tail of the catch *l* extends under a rod, *o*, which rises and falls with the faller or coping wire of the spinning-jack, and which is so arranged that by its action the catch is sprung whenever the spinner applies the faller to the threads. As soon as this takes place the rod A follows the action of the spring *e*, and the belt is shifted from the loose to the fast pulley, or to such a position that it runs partially onto the loose and partially onto the fast pulley, according to the amount of motion allowed to the rod A. This motion is regulated by a screw, *p*, which screws into the standard *n*, and the point of which strikes against the end of the rod A. By turning this screw back the rod A is allowed to fly out farther, and a larger portion of the belt is thrown on the fast pulley than when the screw is turned in.

By this arrangement the spinner is enabled to wind more yarn upon the bobbins and to operate a much larger jack with the same amount of strength, and furthermore a great saving in the wear and tear of the belt and carriage of the jack is effected.

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

The longitudinally-sliding rod A, connected to the cam-lever B *d*, in combination with the belt-shipper *k* and catch *l*, operated by the faller or copping wire of a spinning-jack, substantially as and for the purpose set forth.

The above specification of my invention signed by me this 10th day of April, A.D. 1865.

EZRA DEWS.

Witnesses:

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