(No Model.)

B. W. BENNETT.

MECHANICAL MOVEMENT.

No. 594,930. Patented Dec. 7, 1897.

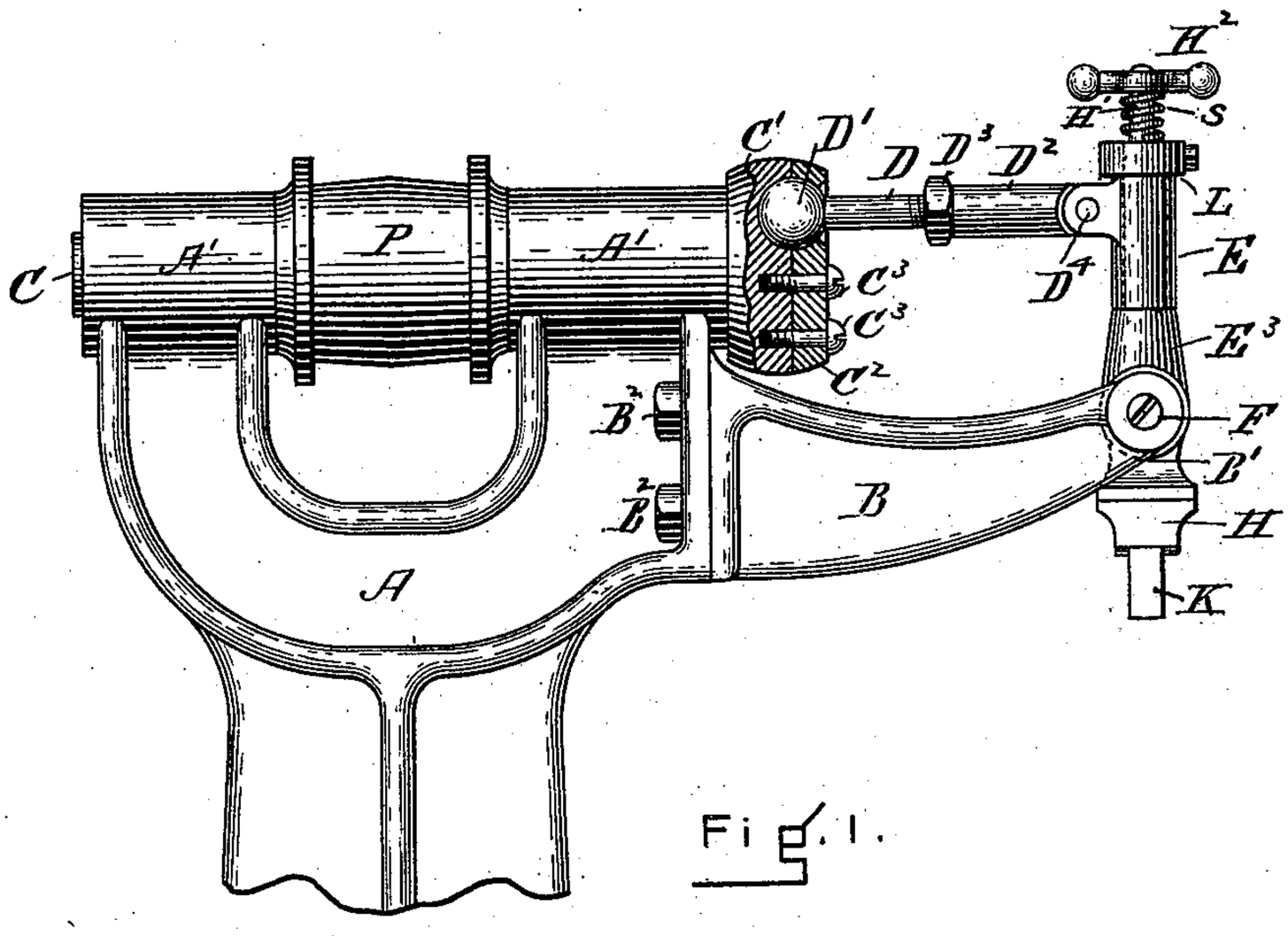

Fig. 1.

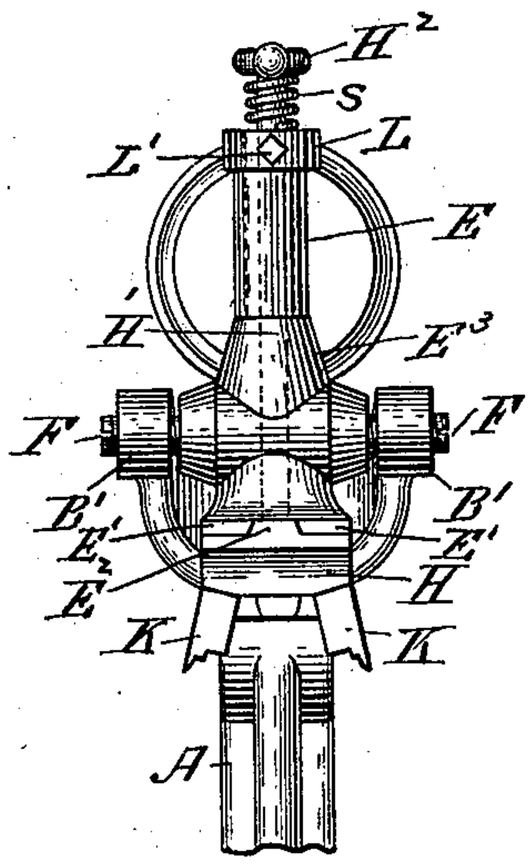

Fig. 2.

WITNESSES:

William H. Parry.

Frank G. Hattie.

INVENTOR:

Benjamin W. Bennett
by Frank G. Parker atty.

UNITED STATES PATENT OFFICE.

BENJAMIN W. BENNETT, OF EAST BRIDGEWATER, MASSACHUSETTS.

MECHANICAL MOVEMENT.

SPECIFICATION forming part of Letters Patent No. 594,930, dated December 7, 1897.

Application filed April 3, 1897. Serial No. 630,610. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN W. BENNETT, of East Bridgewater, in the county of Plymouth and State of Massachusetts, have invented a new and useful Improvement in Mechanical Movements, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention consists in a peculiar mechanism to be applied to machines in which the working part or tool has imparted to it a rapid vibratory motion, as in boot and shoe burnishing machines, the object being to simplify construction and to produce a mechanism by which the length of the vibrations of the tool may be varied at will.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side view of a boot and shoe burnishing machine having my improvements applied. Fig. 2 is a front elevation of the same.

In the drawings I have made an illustration which shows a boot and shoe burnishing machine the burnishing-tool holder H of which has motion imparted to it by my mechanical-motion device; but I do not wish to confine myself to this machine exclusively.

The frame of the machine is represented by A A′ A′. The parts A′ A′ form a housing for the main arbor C, which is driven by the pulley P. A disk C′ is attached to the arbor C, and in connection with the disk C^2 forms a mechanism in which the socket-joint for the globular head of the pitman D D^2 is constructed. The disk C^2 is connected to the disk C′ by means of screws C^3 C^3.

The vibrating upright E E′ is pivoted between the arms B′ B′ of the forked bracket-piece B, the screws F F acting as pivots.

The vibrating upright E has ear-pieces through which a pin D^4 passes and serves to connect the pitman D D^2 to the ball D′ of the ball-and-socket joint in the disk C′ C^2. The part D of the pitman is screwed into the part D^2 and is held by the check-nut D^3.

The tool-holder H has a long shank H′, (indicated by dotted lines, see Fig. 2,) which passes up through the center of the vibrating upright E, and has at its upper end a cross-handle H^2 and a spring S. When it is desirable to turn the tool-holder H so as to reverse the positions of the burnishing-tools K K, the operator can depress the handle H^2, which will force the projection E^2 downward below the side pieces E′ E′ on the lower end of the vibrating upright E and leave the tool-holder free to be turned around. Then by releasing the handle from pressure the spring S will draw the tool-holder up, so as to again bring the projection E between the side pieces E′ E′.

The bracket B is attached to the frame of the machine by bolts B^2 B^2, which pass through slots, (not shown,) so that the said bracket can be adjusted vertically, whereby the pivot D^4, on which the pitman swings, may be moved up and down. This movement or adjustment admits of varying the length of the stroke imparted to the burnishing-tool. For instance, if the pivot D^4 is brought near to the axis-line of rotation of the disk C′ C^2 then the vibration will be but slight and will cease altogether when the pivot D^4 is brought to the axis-line. The vibrating upright is made in two parts. The lower part E^3 extends through the upper part E, as indicated by dotted lines, and has attached to its upper end a ring L, which is made fast to it by a set-screw L′. By this arrangement the part E, to which the pitman D D^2 is attached, is free to swing on its vertical axis, thus allowing the pitman to act freely.

I have not particularly described the details of the burnishing-machine, for the reason that I do not confine myself to this machine, as my devices will apply to other machines.

I claim—

In a mechanical movement, a rotating disk, a pitman connected to said disk, by means of a ball-and-socket joint, a vibrating member connected to said pitman by a pivot-joint, and adjusting mechanism by which the said pivot-joint may be adjusted in relation to the axis of the rotating disk, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 29th day of March, A. D. 1897.

BENJAMIN W. BENNETT.

Witnesses:

CHARLES W. BENNETT,

SAMUEL KEITH.