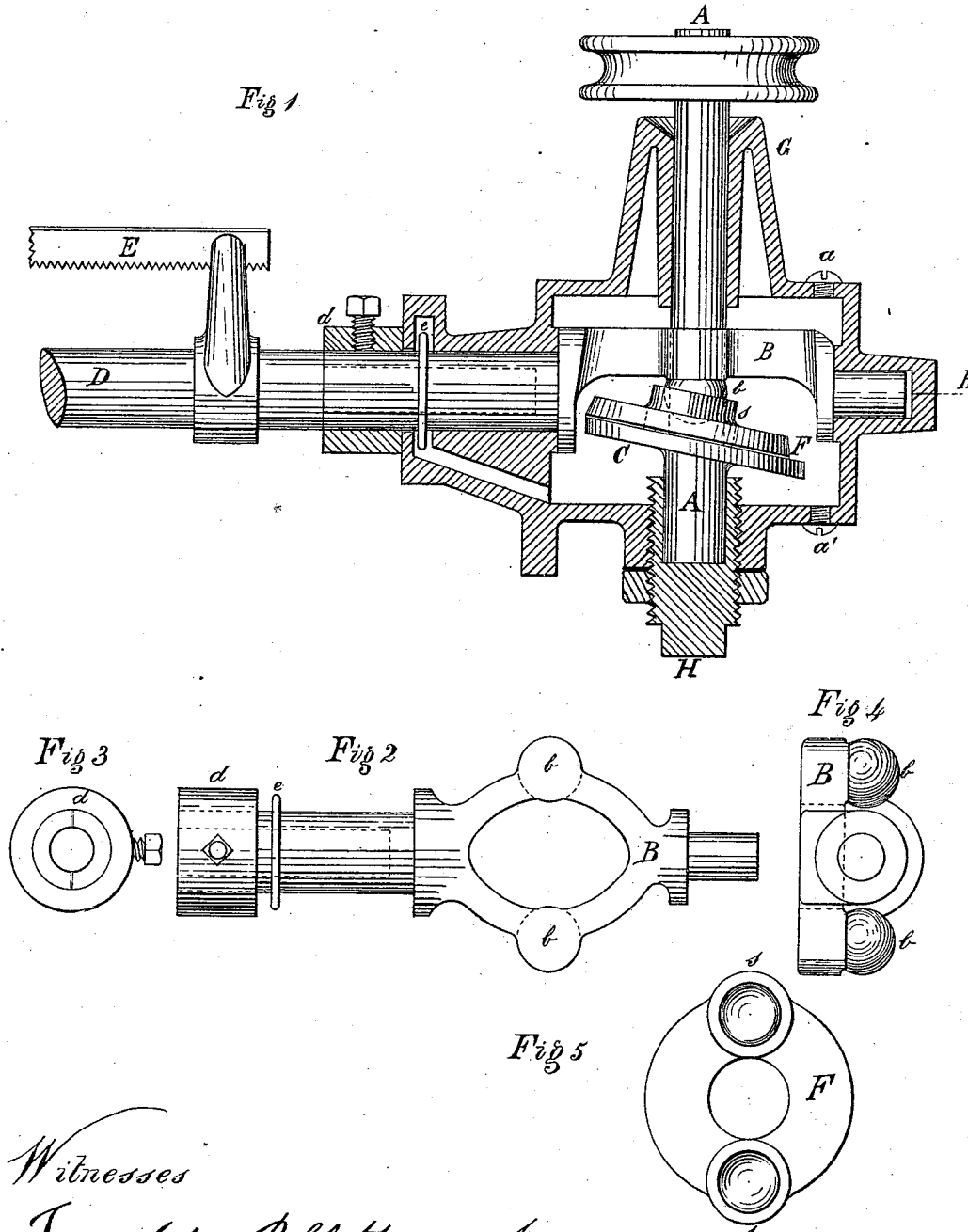


J. BARKER.

Doffing-Mechanism for Carding-Machines.

No. 159,742.

Patented Feb. 16, 1875.



Witnesses
Joseph Collitt
Benjamin Holt

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IMPROVEMENT IN DOFFING MECHANISMS FOR CARDING-MACHINES.

Specification forming part of Letters Patent No. 159,742, dated February 16, 1875; application filed November 9, 1874.

To all whom it may concern:

Be it known that I, JAMES BARKER, of the city of Philadelphia and State of Pennsylvania, have invented an Improvement for Operating the Doffing-Comb of a Carding-Machine, of which the following is a specification:

The object of my invention is to convert a rotary into a reciprocating motion for operating the doffing-comb of a carding-machine.

The mechanism is simple in construction, perfectly balanced, and capable of running at high speed; and consists of a vertical shaft, angular disk, loose washer, and an oscillating yoke with ball-and-socket joints, all of which will be hereafter described.

Figure 1 of the accompanying drawing represents an elevation of my improvement with a vertical section of the box in which it works. Figs. 2, 3, and 4 are views of the oscillating yoke. Fig. 5 is a view of the loose washer.

Similar letters in the drawings refer to like parts.

My invention is constructed as follows: In Fig. 1 that part shown in section represents a cast-iron box, which is constructed, as shown in the drawing, with a step, H, and journal-box G for the shaft A, and journal-boxes for the yoke B. This box or case is constructed of two parts, the joint K being in line with the center of the journals of the yoke B, and being made tight, so that it will hold oil, the box being provided with two openings, *a a'*, which are fitted with screw-plugs that the box may be charged with oil by *a*, and the refuse oil may be drawn off at *a'*. A is the vertical driving-shaft, and on this shaft is a disk, C, the face of which is at an angle to the line of the center of shaft A. (See Fig. 1.) On this disk is fitted a washer, F, having two cups or sockets, *s s*. (See Fig. 5.) At right angles to the shaft A is the yoke

B, and on the under part of this yoke are two half-spheres, *b b*, fitting the sockets *s s* in the washer F. On the end of the yoke B is a loose collar, *d*, and a fixed one, *e*. This end of the yoke-journal is bored out, forming a socket, which is slit with a fine saw. (See Fig. 3.) This socket receives the comb-shaft D, which, with the comb, is constructed in the usual manner. The comb-shaft D is readily adjusted and put in any desired position by means of the set-screws in the collar *d*, which hold it firmly to the yoke B. The object of the fixed collar *e* is to prevent the oil from escaping or working out of the journal-box, for as the oil works to the collar, it will drip off and return to the box by the channel shown in Fig. 1.

The operation is as follows: Motion in either direction is communicated from any suitable part of the carding-machine to the grooved pulley on the shaft A. The rotary motion of the disk C will give an oscillating motion to the yoke B, which in turn will give a reciprocating motion to the comb E. The working parts being immersed in oil will be prevented from heating, and the shaft A may be driven as high as three thousand revolutions per minute. Should any of the parts wear, the lost motion may be taken up by the screw and nut on the step H, all of which will be readily understood from the drawings by an ordinary mechanic.

I claim—

The shaft A, angular disk C, washer F, and yoke B, having ball-and-socket joints *s s b b*, in combination with the shaft D, and comb E, for the purpose of doffing the sliver from a carding-machine, as described.

JAMES BARKER.

Witnesses:

JOSEPH PALLITT,
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