No. 822,550. PATENTED JUNE 5, 1906.

O. L. OWEN.

DOFFER COMB MOTION.

APPLICATION FILED AUG. 19, 1905.

Fig. 1.

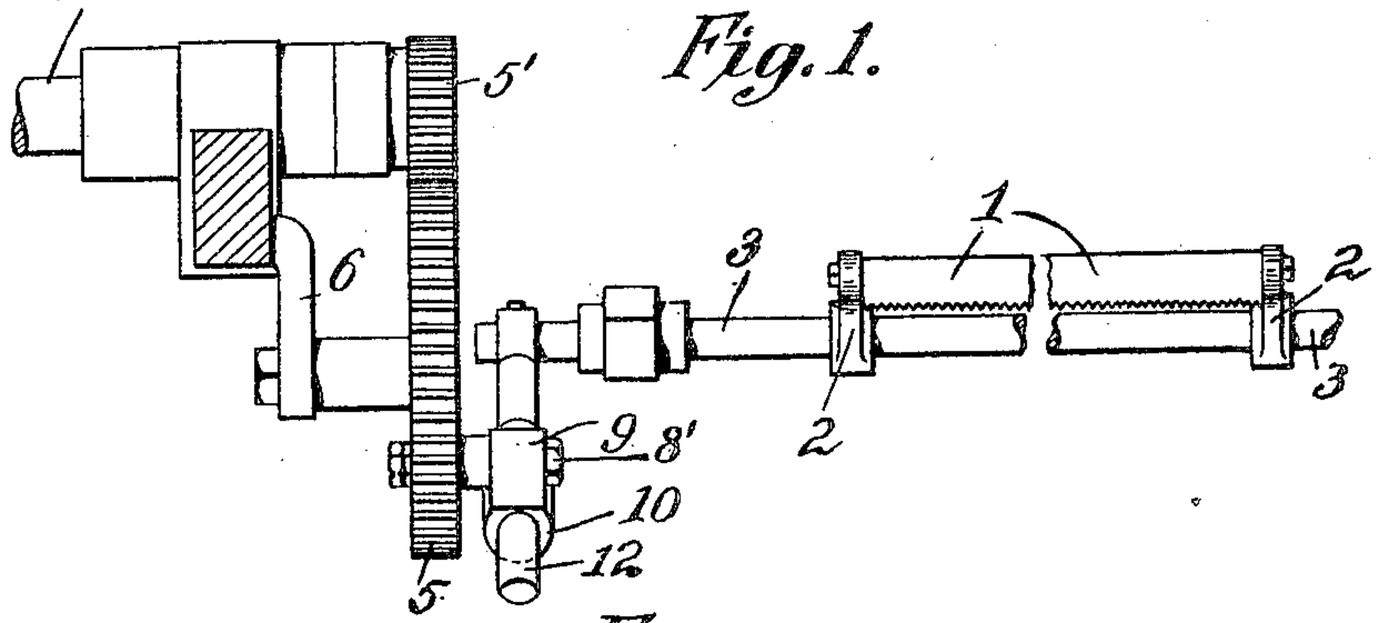


Fig. 2.

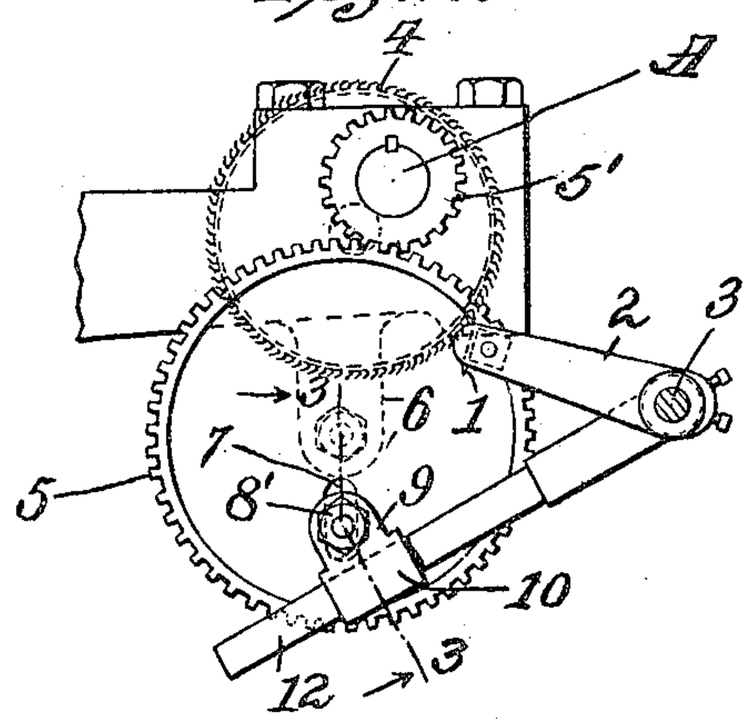
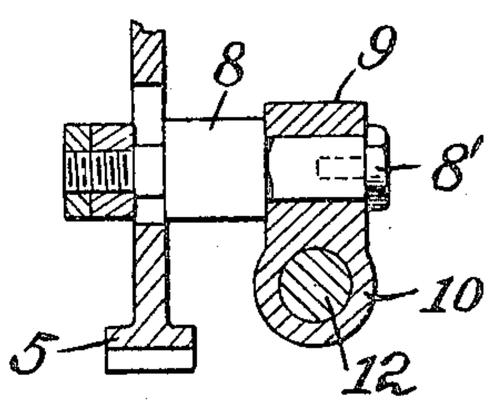


Fig. 3.



Attest:
Edgeworth Bruce
H. G. Hinds

Oscar L. Owen Inventor:
by Munn & Co Attys.

UNITED STATES PATENT OFFICE.

OSCAR L. OWEN, OF WHITINSVILLE, MASSACHUSETTS, ASSIGNOR TO THE WHITIN MACHINE WORKS, OF WHITINSVILLE, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

DOFFER-COMB MOTION.

No. 822,550. Specification of Letters Patent. Patented June 5, 1906.

Application filed August 19, 1905. Serial No. 274,833.

To all whom it may concern:

Be it known that I, OSCAR L. OWEN, a citizen of the United States, residing at Whitinsville, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Doffer-Comb Motions, of which the following is a full, true, and concise specification.

This invention relates to simple and effective means for operating the doffer-combs of cotton-combing and other machines which work upon cotton and similar fibrous material; and the invention consists in the combination, as hereinafter described, of a crank-wheel and wrist-pin member which has a sliding crank connection with the doffer-comb rock-shaft, whereby the doffer-combs may be appropriatedy oscillated and their operation nicely regulated and controlled.

In the accompanying drawings, forming a part hereof, Figure 1 is a front elevation of a doffer-comb and its rock-shaft operated according to this invention. Fig. 2 is an end elevation of the same with the doffer-cylinder shown in dotted lines, and Fig. 3 is an enlarged central section through the wrist-pin stud.

The doffer-comb 1 is carried by a pair of arms 2 on the usual doffer-comb rock-shaft 3, which is suitably journaled in the frame of the machine, so that the said comb will be free to oscillate in close proximity to the surface of the rotating doffer-cylinder 4. The latter is shown as being of the ordinary wire-tooth construction and serves as usual to collect pieces of fiber from some other element of the machine and present the same to the doffer-comb, by which they are then removed from the cylinder and deposited elsewhere. According to the present invention the means for operating the doffer-comb comprises a crank or gear wheel 5, which is either fast upon or geared with some convenient rotary shaft of the machine upon which the doffer-comb is employed. As shown herein, the wheel 5 is in mesh with a pinion 5′ on the end of the rotary power-shaft A of a well-known Heilmann comber and is removably held in a bracket 6, so that it may be supplanted by other crank-wheels of different diameter, if desired, for the purpose of varying the number of oscillations of the doffer-comb during one revolution of the doffer-cylinder. The pinion 5′ is also removably secured to the power-shaft for the same purpose. A radial slot 7 is formed in the face or web of the wheel 5, and a shouldered wrist-pin stud 8 is secured therein at a certain distance from the axis of the wheel, predetermined according to the length of throw desired for the doffer-comb. The stud 8 has a sliding crank connection with the rock-shaft 3 by means of a wrist-pin member 9, pivotally carried on the reduced end of the stud 8 and provided below its point of pivotal support with a sleeve 10, which embraces and slides upon the end of a crank-arm 12, carried by the rock-shaft. The member 9 is retained upon the stud by the end bolt 8′, tapped into the end thereof, Fig. 3.

As the gear-wheel 5 and its stud 8 revolve in the normal operation of the machine a proper oscillating movement is imparted to the doffer-comb through the wrist-pin member 9, which remains dependent from the stud and slides back and forth on the end of the crank-arm, the latter being always maintained beneath the stud. Adjustment or regulation of the action of the doffer-comb may be readily accomplished either by changing the size of the gears 5 and 5′, as above described, or by adjusting the position of the stud 8 in its slot, or both, and the construction described besides being simple and compact is also positive in its operation and readily accessible for manipulation.

Having described my invention, what I claim, and desire to secure by United States Letters Patent, is—

1. As a means for operating doffer-combs, the combination of a doffer-comb rock-shaft, a crank-arm thereon, a crank-wheel, and a wrist-pin member on said wheel having sliding connection with said crank-arm.

2. As a means for operating doffer-combs, the combination of a doffer-comb rock-shaft, a rotary power-shaft, a gear-wheel removably mounted in driving engagement therewith, and a sliding crank connection between said wheel and rock-shaft adapted to oscillate the latter.

3. As a means for operating doffer-combs, the combination of a doffer-comb rock-shaft, a rotary power-shaft, a gear-wheel removably secured in mesh therewith and an ad-

justable wrist-pin member carried by said wheel and having sliding crank connection with said rock-shaft to oscillate the same.

4. The combination with a doffer-comb rock-shaft and its crank-arm, of a crank-wheel and a sliding sleeve on said arm pivotally secured to the face of said crank-wheel, whereby rotation of the latter oscillates said rock-shaft.

5. The combination with a doffer-comb rock-shaft and its crank-arm, of a crank-wheel provided with a slot, a stud adjustably secured in said slot, and a wrist-pin member pivotally carried by said stud and provided below the stud with a sliding sleeve embracing said crank-arm.

In testimony whereof I have signed my name to the specification in the presence of two subscribing witnesses.

OSCAR L. OWEN.

Witnesses:
ELWIN H. ROONEY,
JOSEPH B. ADAMS.