(No Model.)

J. H. WHITEHEAD.

MACHINERY FOR COMBING WOOL, COTTON, &c.

No. 315,197. Patented Apr. 7, 1885.

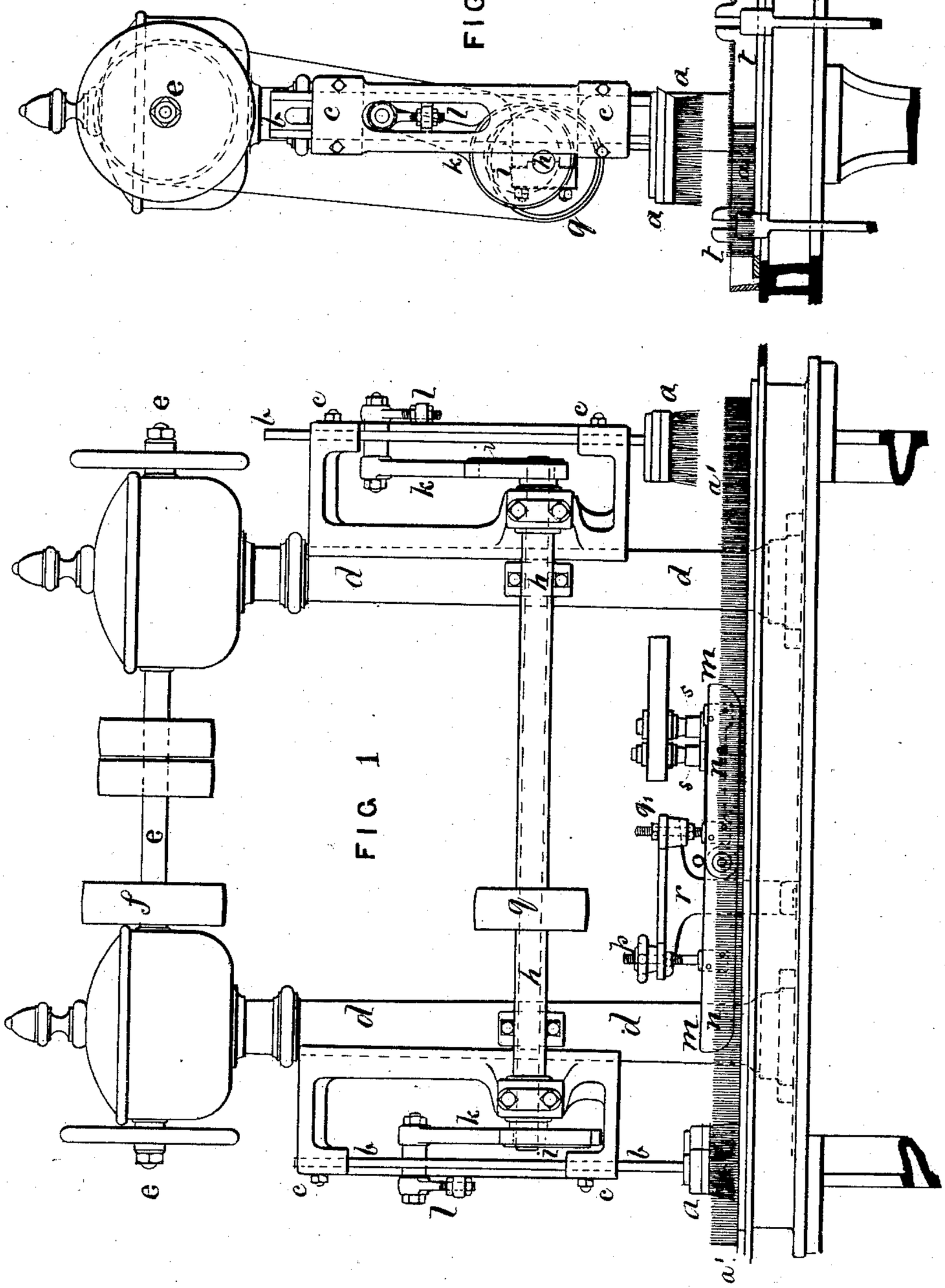

FIG 1

FIG 2

WITNESSES { J. W. Standing, H. Clark Jefferson

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JOHN HENRY WHITEHEAD, OF LEEDS, COUNTY OF YORK, ENGLAND.

MACHINERY FOR COMBING WOOL, COTTON, &c.

SPECIFICATION forming part of Letters Patent No. 315,197, dated April 7, 1885.

Application filed April 12, 1883. (No model.) Patented in England November 7, 1882, No. 5,319.

To all whom it may concern:

Be it known that I, JOHN HENRY WHITEHEAD, a partner in the firm of Taylor, Wordsworth & Co., of Leeds, in the county of York, England, have invented new and useful Improvements in Machinery for Combing Wool, Cotton, Silk, and other Fibrous Substances, of which the following is a specification.

My improvements have reference to that class of machines known as "Nobel's Combing-Machines," on which dabbing-brushes and feed-knives are employed.

Heretofore the feed-knife has been made in one piece and rigid, and great difficulty has been caused when the knife has to be adjusted for the purpose of regulating the feed of the wool, because when the knife is raised at one end to increase the feed the other end is lowered and comes in contact or nearly so with the comb-circle.

My invention consists in a feed-knife made in two parts hinged together and suspended from separate adjusting-screws upon a bracket or standard; and my invention also consists in the combination, with the dabbing-brushes and mechanism for operating the same, of the large circular comb provided with pins or teeth, of guides, each of which is made of a straight rod with an open slot, all as hereinafter described, and shown in the accompanying drawings.

Figure 1 is a front elevation, and Fig. 2 a side elevation, of a part of a combing-machine with my improvements applied thereto.

a a are the dabbing-brushes. These are carried on vertical slides *b b*, fitted so as to slide freely in bearings *c c*, attached to the pillars *d d*, which are of ordinary construction.

e is the driving-shaft, mounted in suitable bearings on the top of the pillars *d d*, and is of ordinary construction. On the driving-shaft *e* is provided a fast pulley, *f*. The required vertical reciprocating movement is imparted to the dabbing-brushes *a a* from the pulley *f* on the driving-shaft *e* through pulley *q*, shaft *h*, eccentric or crank *i*, connecting-rod *k*, and adjusting-link *l* and slide *b*. The eccentrics *i* are so located on the shaft *h* with relation to each other that when the dabbing-brush connected with and operated by one of said eccentrics is depressed the other brush operated by the second eccentric is elevated. By driving, as shown, the brushes always retain their exact positions with regard to each other, whereas previously, when driven separately, those positions were liable to frequent changes, and not unfrequently performing the operation of dabbing simultaneously, causing thereby a great strain on the machine.

The feed-knife is shown at *m m*, and is divided into two parts, *n'* and n^2, which may, when preferred, be hinged together at *o*, though not necessarily so. These parts *n'* and n^2 are suspended from the adjustable screws *p* and *q'*, carried on the bracket *r*. By this arrangement the adjustment of the parts may be regulated simultaneously or independently and separately—that is to say, the part *n*, which is used for adjusting the feed of the wool to the comb, may be altered in position without interfering with the part n^2, which is used for holding down the wool or sliver on the comb while it is being drawn therefrom by the drawing-off rollers *s s*.

t is the guide, which is used for conducting the wool from the balls into the feeding-boxes. Hitherto the guide has been made in the form of a flat plate having holes therein, through which the sliver is made to pass. The disadvantage of these holes has been that the slivers in passing through them are very liable to become entangled and rob each other of wool, thus preventing even slivers being fed into the boxes.

In my improvements I dispense with the hereinbefore-mentioned plate and employ a straight rod with flanges at each end or open guide *t*. These guides *t* are adjacent to the large circular comb containing the teeth *a'*, and in the position in which the ordinary guides are placed.

I claim as my invention—

1. The knife made in two parts, n' n^2, in combination with the standard *r* and separate adjusting-screws *p q'*, substantially as set forth.

2. The combination, with the dabbing-brushes and mechanism for operating the same, substantially as specified, of the large circular comb provided with pins or teeth, and the guides *t*, each made of a straight rod with an open slot, substantially as specified.

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Witnesses:
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