No. 662,581. Patented Nov. 27, 1900.

H. WALSH.

MECHANISM FOR STRIPPING TEETH OF REVOLVING FLATS OF CARDING ENGINES.

(Application filed Sept. 1, 1899.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

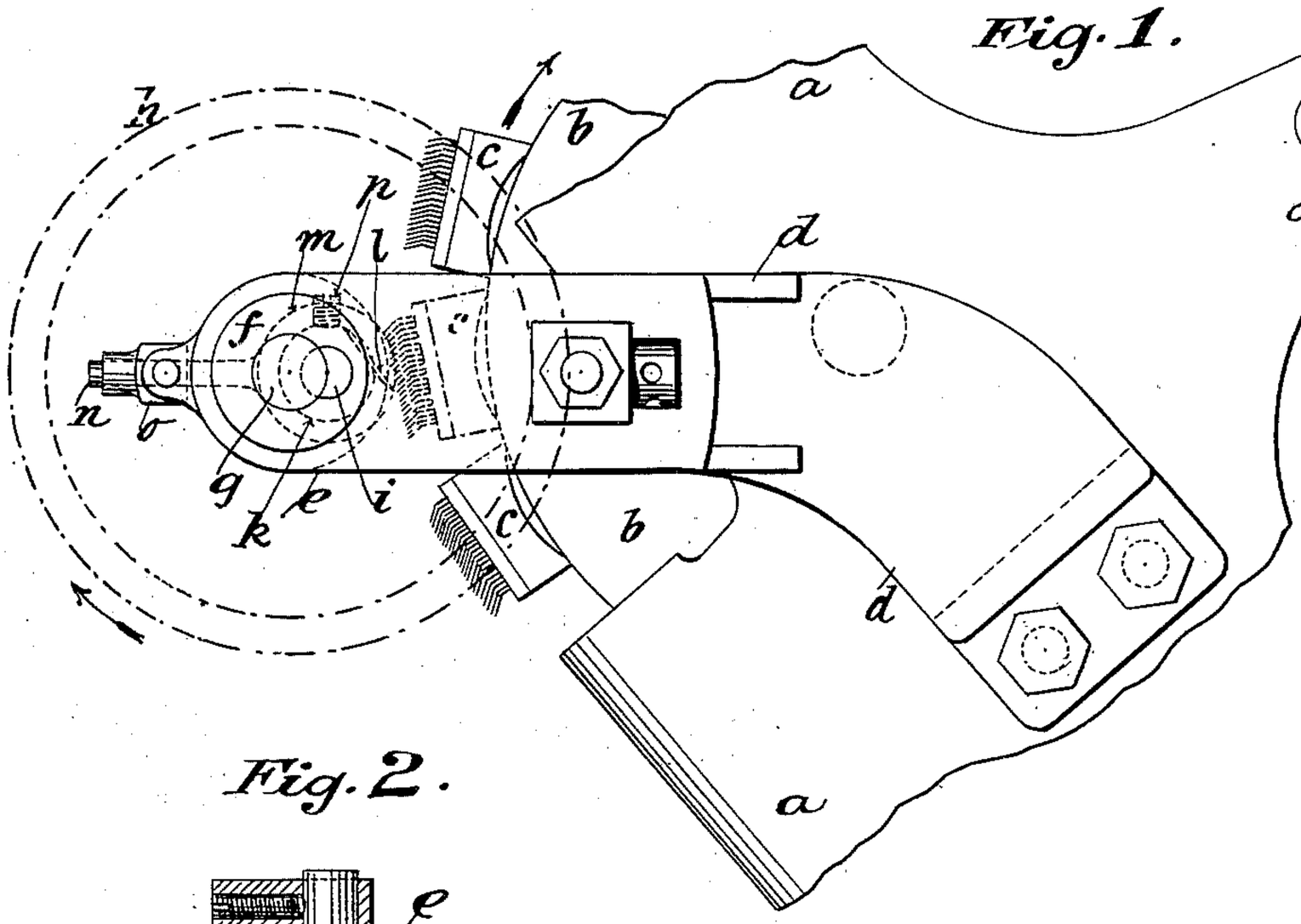

Fig. 2.

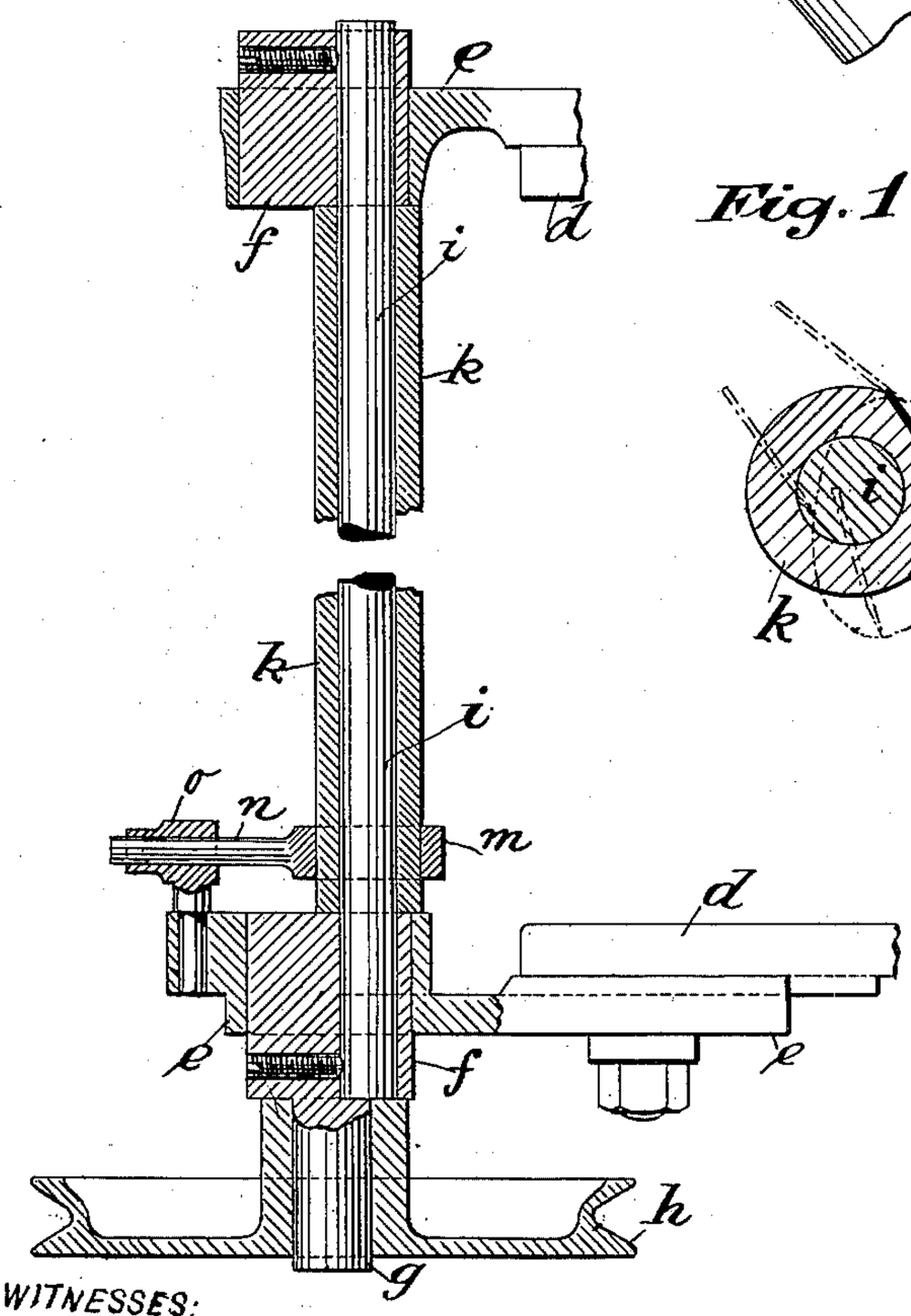

Fig. 1x.

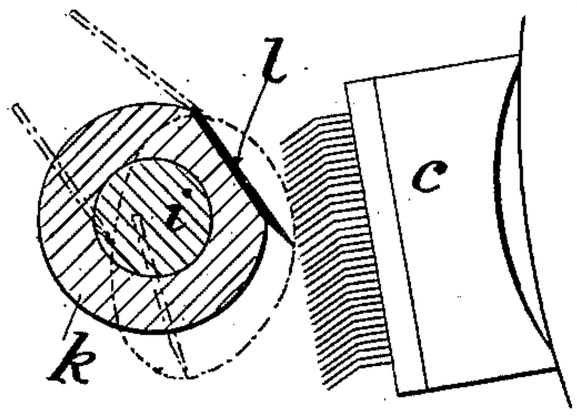

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Fig. 3.

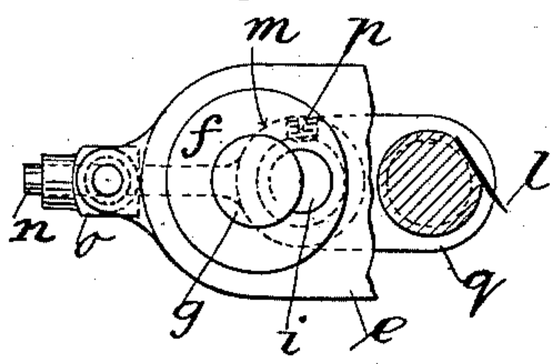
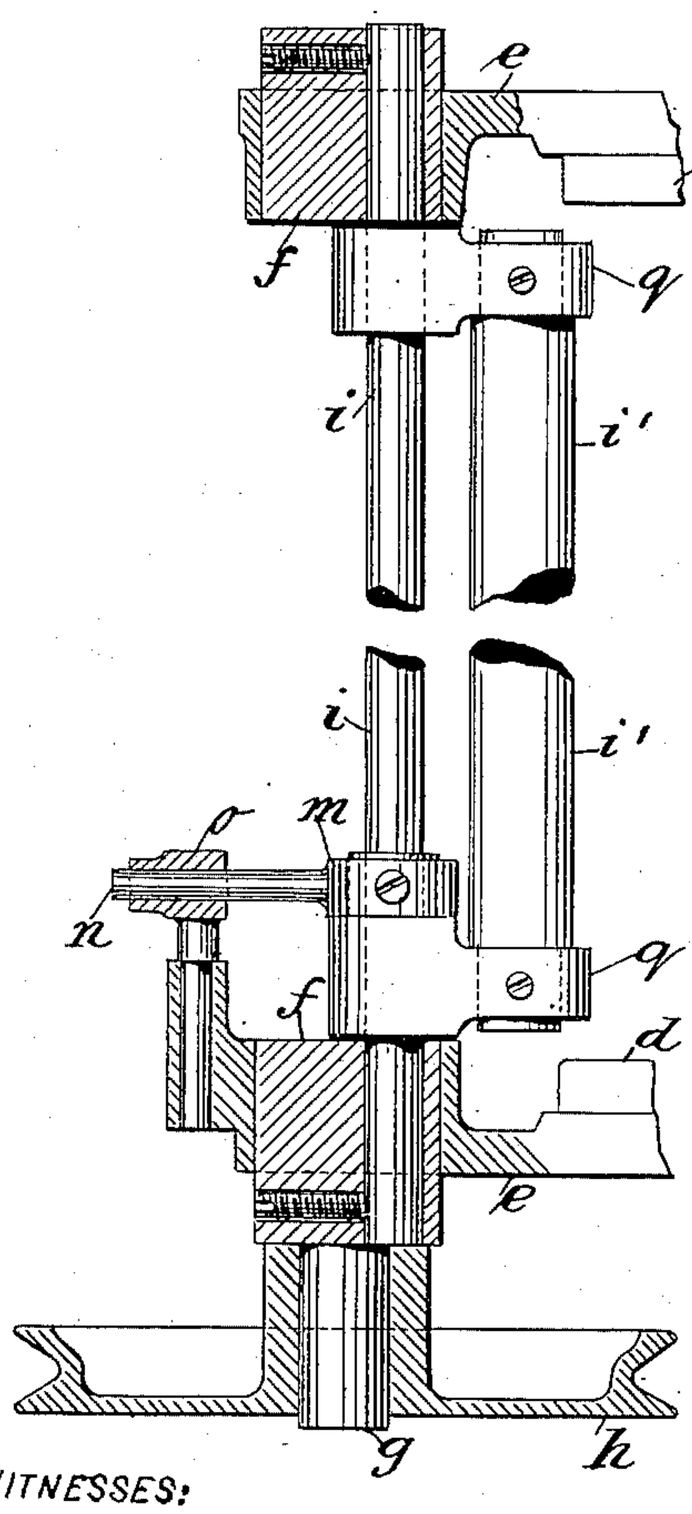


Fig. 4.



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UNITED STATES PATENT OFFICE.

HENRY WALSH, OF OLDHAM, ENGLAND.

MECHANISM FOR STRIPPING TEETH OF REVOLVING FLATS OF CARDING-ENGINES.

SPECIFICATION forming part of Letters Patent No. 662,581, dated November 27, 1900.

Application filed September 1, 1899. Serial No. 729,175. (No model.)

To all whom it may concern:

Be it known that I, HENRY WALSH, a subject of the Queen of Great Britain, residing at Oldham, in the county of Lancaster, England, have invented new and useful Improvements in Mechanism for Stripping the Teeth of Revolving Cards in Carding-Engines, (for which I have made application for patent in Great Britain, No. 6,740, bearing date March 29, 1899,) of which the following is a specification.

Hitherto in carding-engines with revolving flats the waste fibers or strips have been removed from the card-teeth of the flats by a comb or card having an up-and-down or oscillating movement imparted and reciprocating in the same path over the surface of the card-teeth. In practice it has been found that the said reciprocatory motion often damages the teeth of the comb and flats by coming into contact with each other, which contact takes place owing to the flats being pressed from the periphery of their blocks or disks by particles of dirt and fluff entering between the ends of the flats and the blocks or disks or owing to the flats hanging loosely from the latter through the elongation of the chain-links of the flats, and as the delicate nature of the card-teeth of the flats does not permit of them being bent backward and forward through the said defect the card-teeth break frequently.

The object of my invention is to provide means whereby the said defects are entirely obviated and the cards are combed or stripped more naturally and effectively than heretofore has been the case—namely, in the direction of the angle of the card-teeth on the flats—and thereby render it very easy to draw the waste fibers from the same. I attain these objects by the mechanism illustrated in the accompanying two sheets of drawings, in which—

Figure 1 is an end view; Fig. 2, a sectional plan; Fig. $1^{\times}$, a diagram of my improved card-stripping motion. Fig. 3 is a sectional end view, and Fig. 4 a sectional plan, of my improved card-stripping motion adapted for use of existing combs.

Similar letters refer to similar parts throughout the several views.

a is the bracket, bolted to the outer side of each bend carrying the disks *b*, which support the flats *c*. To each of the said brackets is secured a bearing formed in two parts *d e*, the outer part *e* of which is rendered adjustable upon the inner part *d*. In each of the said outer parts is mounted a disk or cylindrical body *f*, one of which is formed with a stud *g*, having secured thereto a rope pulley *h*, by which the said disks or cylindrical bodies are jointly rotated from any suitable moving part of the carding-engine. To the disks or cylindrical bodies *f* I secure eccentrically a shaft *i*, which connects the same together so as to form a double crank, and upon the latter I place a tube *k*, to which is attached the comb *l*, by which the teeth of the card-flats *c* are stripped, the said disks or cylindrical bodies and shafts actuating the said comb in crank fashion. Upon the said tube I secure at one end a ring *m*, having an arm *n*, the free end of which is received by the socket *o*, mounted in the bearing *e*, so that the otherwise concentric path of the teeth of the comb *l* is converted into an eccentric or irregular one or path resembling an ellipse. (See more particularly Fig. $1^{\times}$.) By the set-screw *p* in the ring *m* the comb *l* is rendered adjustable therein, so that the teeth of the comb can be set to move at any required angle relative to the card-teeth.

According to a modification (see Figs. 3 and 4) the said crank motion and irregular or path of the comb resembling an ellipse may be obtained by employing in each of the bearings *e* an eccentric *f*, and upon the same the tube *k*, which carries the comb *l* and the ring *m n*, as in the former instance.

According to another modification instead of employing the comb *l* upon a tube, as in the former instance, I may dispense with such tube entirely, as shown in Figs. 3 and 4, and employ loosely upon the shaft *i*, which in the previous instance carries the said tube, two arms *q*, to the free ends of which I secure the bar *i'*, carrying the comb as hitherto in use, while the ring *m n* I secure to the boss of one of the arms *q*.

What I claim as my invention, and desire to secure by Letters Patent, is—

In mechanism for stripping the teeth of revolving carding-engines, in combination two disks *f*, *f*, connected together eccentrically

by a removable shaft *i* forming a crank-neck, two bearings *e* in which the said disks revolve, the tube *k* loosely mounted on the said neck, the comb *l* secured direct to the periphery of the said tube, means for regulating the position and path of the said comb relative to the teeth of the cards and one of the said disks being formed with a shaft for rotating the said crank-disks, jointly in the said bearings, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

HENRY WALSH.

Witnesses:
ALFRED BOSSHARDT,
STANLEY R. BRAMALL.