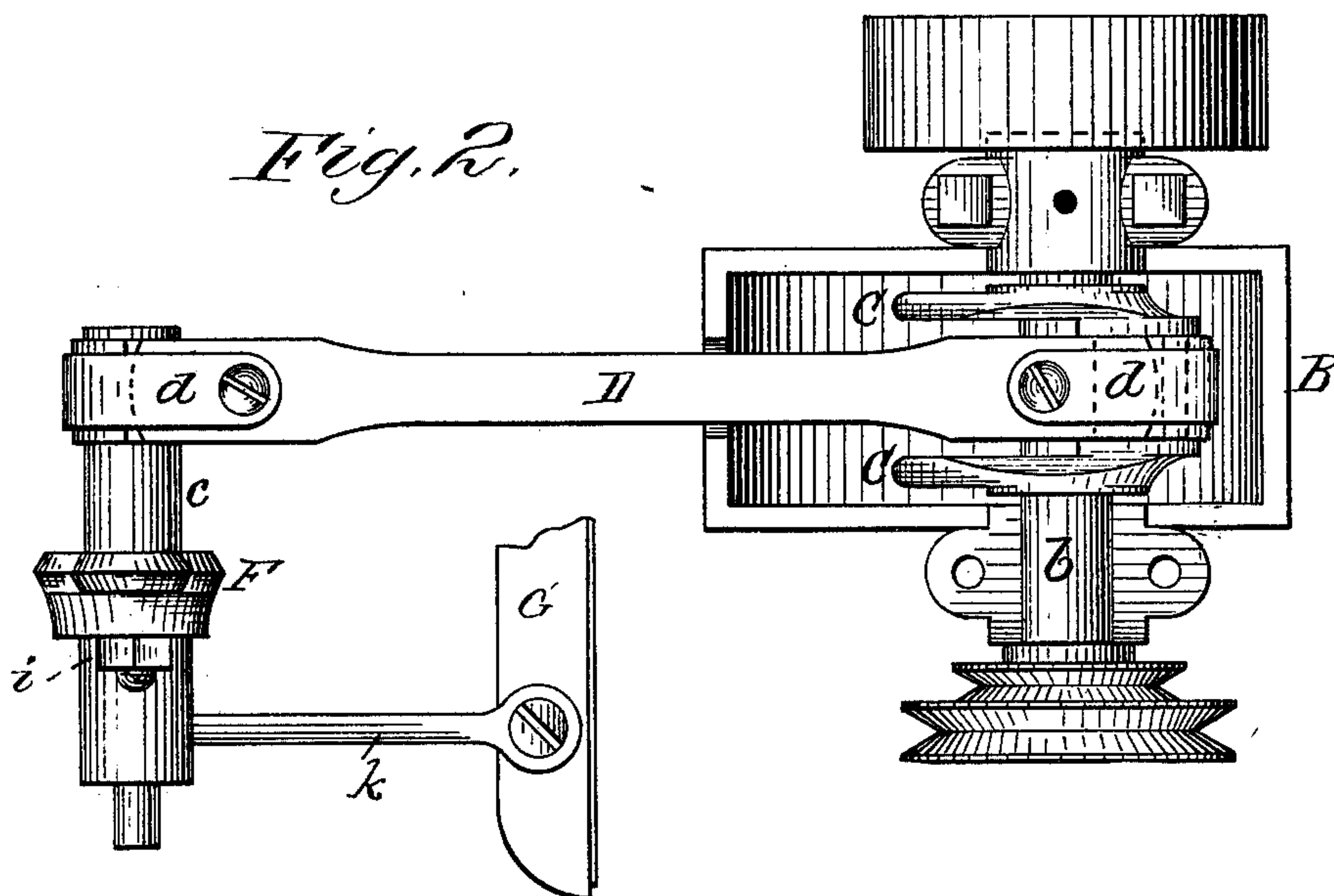
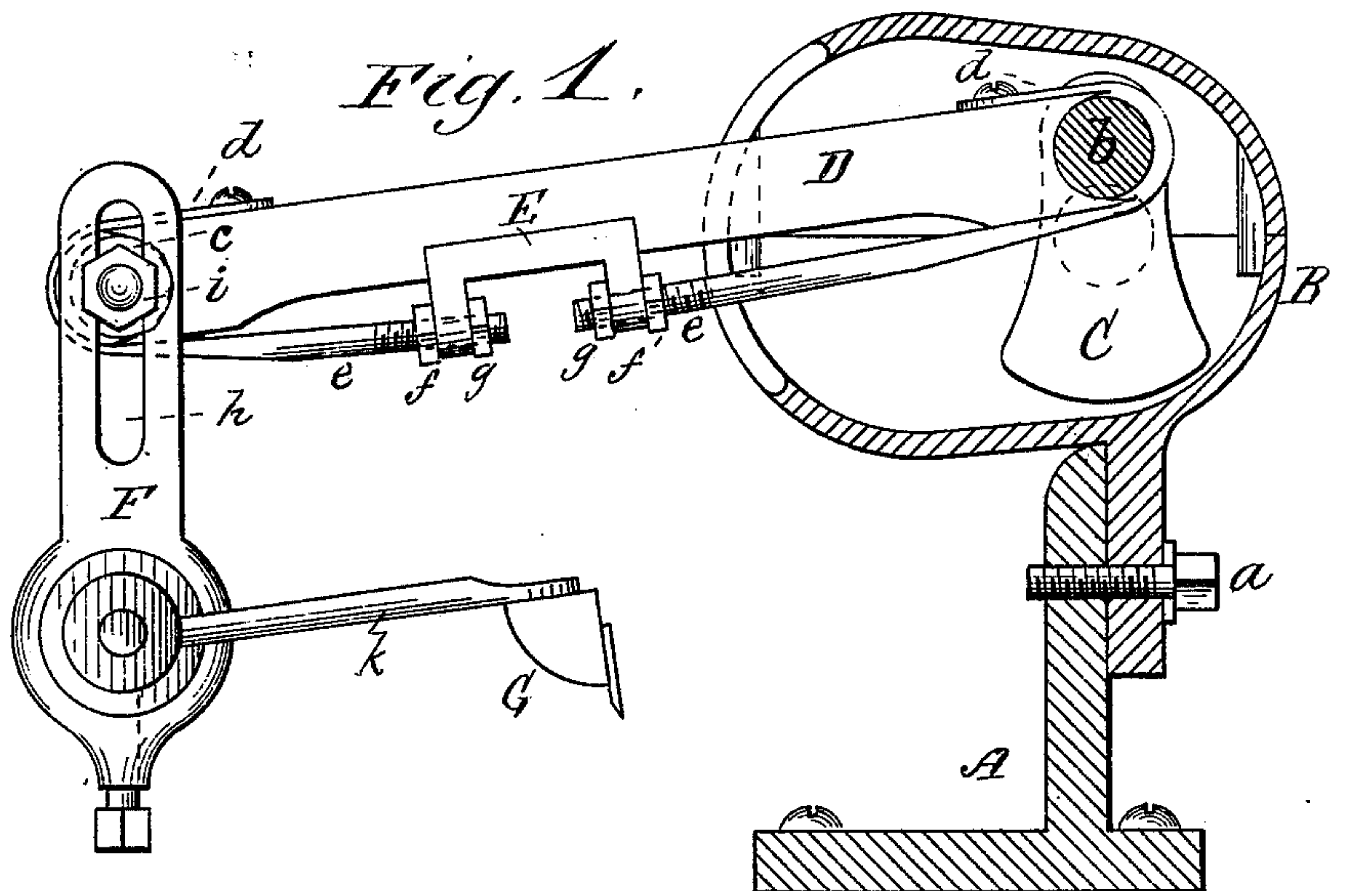


G. FOWLER.
Mechanism for Operating Doffer Combs.

No. 231,160.

Patented Aug. 17, 1880.



WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE FOWLER, OF PHILMONT, NEW YORK.

MECHANISM FOR OPERATING DOFFER-COMBS.

SPECIFICATION forming part of Letters Patent No. 231,160, dated August 17, 1880.

Application filed February 25, 1880.

To all whom it may concern:

Be it known that I, GEORGE FOWLER, of Philmont, in the county of Columbia and State of New York, have invented certain new and useful Improvements in Mechanism for Operating Doffer-Combs, of which the following is a specification.

This invention relates to the mechanism for operating the doffer-combs of carding-machines; and it consists in the special construction and arrangement of mechanism shown in the drawings, and which will be hereinafter described, and subsequently pointed out in the claims.

In the drawings, Figure 1 is a side elevation of my invention, partly in section; and Fig. 2 is a top-plan view with the upper portion of the shell-box removed.

A represents a suitable support or stand, to which is connected a shell-box, B, by screw-bolt *a*, or any other suitable means. This shell-box B is divided longitudinally into two sections, the upper one of which is removable, to allow of access being had to the interior of the box.

To the lower section or stationary portion of the box is journaled a crank-shaft, *b*, operated by belts and pulleys or any of the ordinary or well-known means employed as driving mechanism. That portion of the shaft *b* located within the shell-box B is formed with, or has secured to it, counterbalance-weights C, to overcome the lifting of the doffer-comb without any perceptible jar to the machine.

To the crank-shaft *b*, and between the counterbalance-weights C, is connected one end of an arm, D, in such manner as will admit of the crank imparting to the arm D a reciprocating motion, as desired. The arm D, at its ends, is cut away to form a semicircular seat for the crank-shaft *b*, and also for a shaft, *c*, strap-irons *d* being secured, by suitable screws or bolts, to the upper side of the arm, and bent around the ends of the same and around the shafts *b* and *c*, to confine the end of the arm to the crank-shaft *b* and the shaft *c*, for supporting the arm D to said arm, said shaft or arm-support *c* being at right angles to the arm.

The strap-irons *d* terminate under the arm D in screw-threaded rods *e*, the ends of said rods passing through a yoke, E, rigidly connected to said arm D. Screw-nuts *f g* confine the ends of the rods *e* to the yoke E, and by the employment of such yoke E, rods *e*, strap-irons *d*, and nuts *f g* the wear upon the ends of the arm D is taken up by the tightening or bringing closer together of the ends of the screw-rods.

Connected to the outer end of the shaft or arm-support *c* is an arm, F, having elongated slot *h*, through which passes the screw-threaded end of the shaft *c*, said slotted arm F being firmly held and prevented from turning on said shaft by a nut, *i*. The slotted arm F is, at its lower end, secured to a rock-shaft, which, in turn, carries the arm *k*, for supporting the comb-plate. The arm D is vertically adjustable in the slot *h*, so as to admit of any desired length of stroke being given to the comb G, as found desirable.

The shell-box B encircles the crank-shaft and counterbalance-weights, and its purpose is to prevent the card-waste from coming in contact with and lodging on the shaft and weights.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the strap-arms *d*, each secured at one end to the arm D, and screw-threaded at their other ends, the yoke E, secured to the arm D, and the nuts *f g*, as and for the purpose set forth.

2. The combination of the arm B, strap-irons *d e*, yoke E, counterbalance-weights C, shafts *b c*, slotted arm F, secured to a rock-shaft carrying arm *k*, for supporting the comb-plate, as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

GEORGE FOWLER.

Witnesses:

R. V. L. CAMERON,
GEO. P. HOTON.