(No Model.) 3 Sheets—Sheet 1.

B. A. DOBSON & W. I. BROMILEY.

MECHANISM FOR STRIPPING THE TRAVELING FLATS OF CARDING ENGINES.

No. 439,126. Patented Oct. 28, 1890.

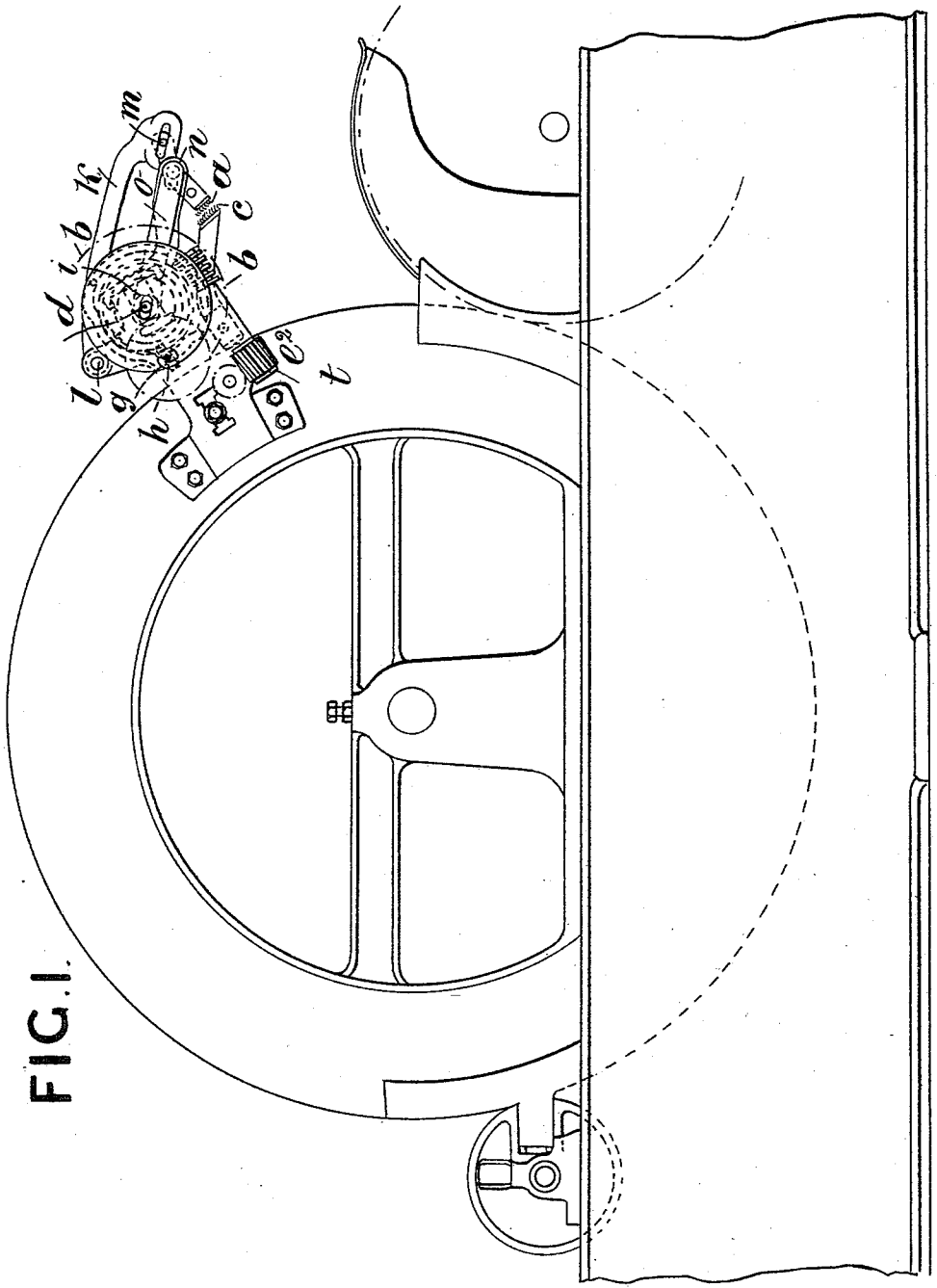

FIG. I.

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their Attorneys.

(No Model.) 3 Sheets—Sheet 2.

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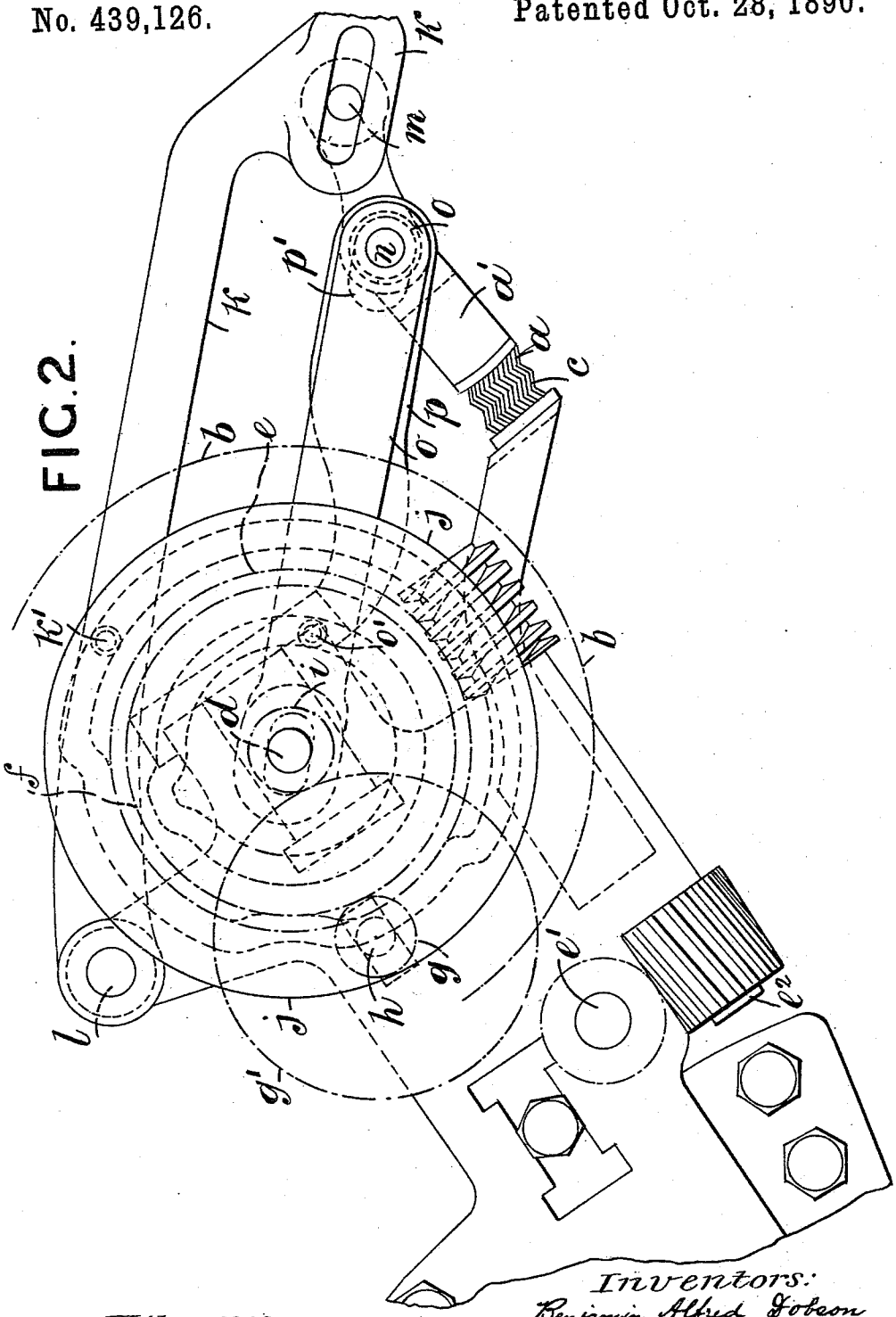
FIG. 2.



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(No Model.) 3 Sheets—Sheet 3.

B. A. DOBSON & W. I. BROMILEY.

MECHANISM FOR STRIPPING THE TRAVELING FLATS OF CARDING ENGINES.

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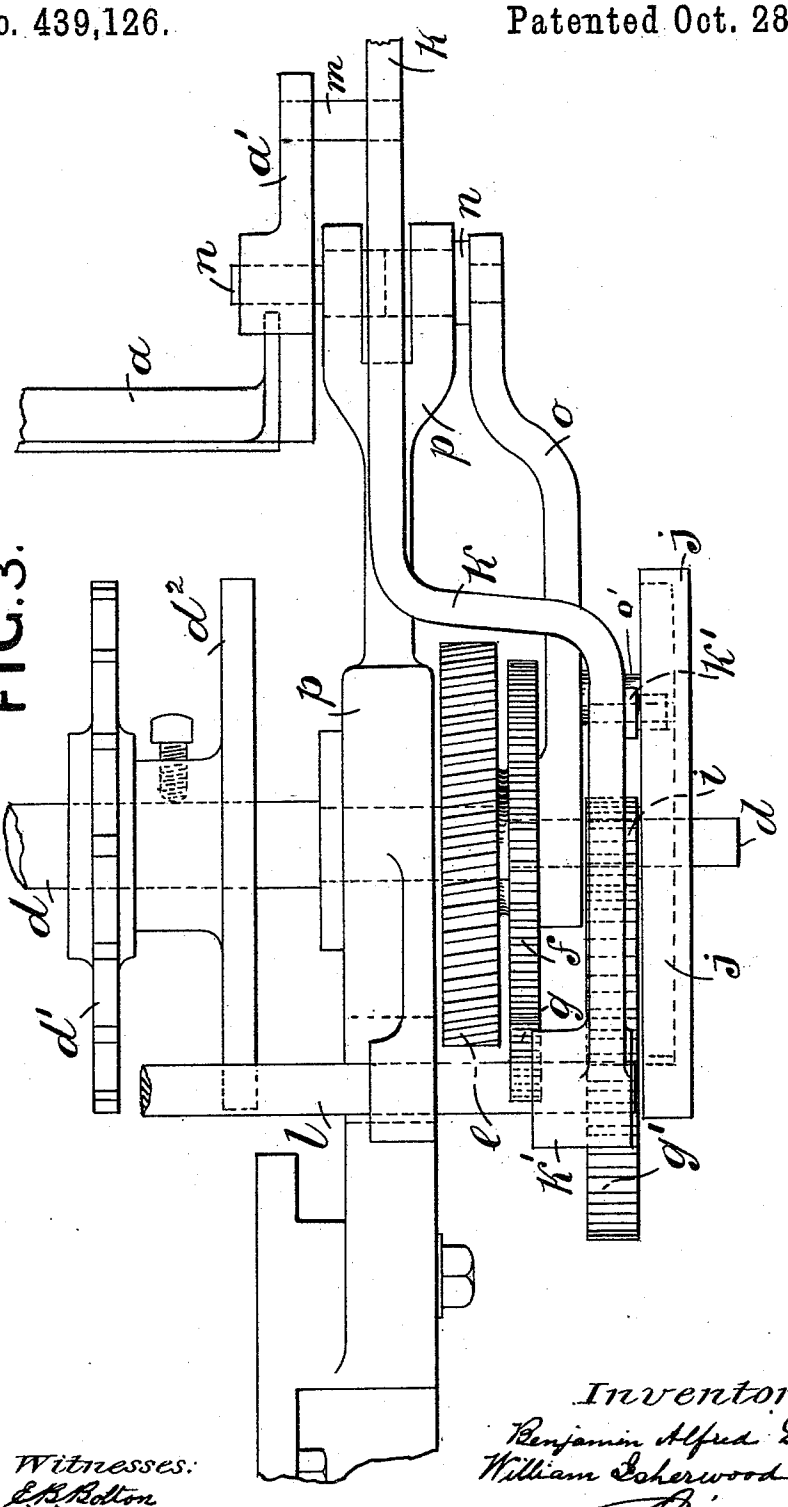
FIG. 3.



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UNITED STATES PATENT OFFICE.

BENJAMIN ALF. DOBSON AND WILLIAM ISHERWOOD BROMILEY, OF BOLTON, ENGLAND, ASSIGNORS TO DOBSON & BARLOW, OF SAME PLACE.

MECHANISM FOR STRIPPING THE TRAVELING FLATS OF CARDING-ENGINES.

SPECIFICATION forming part of Letters Patent No. 439,126, dated October 28, 1890.

Application filed November 5, 1889. Serial No. 329,323. (No model.) Patented in England December 21, 1888, No. 18,668.

To all whom it may concern:

Be it known that we, BENJAMIN ALFRED DOBSON and WILLIAM ISHERWOOD BROMILEY, both subjects of the Queen of Great Britain, and residing at Bolton, in the county of Lancaster, England, have invented certain new and useful Improvements in Mechanism for Stripping the Traveling Flats of Carding-Engines, (for which we have obtained Letters Patent in Great Britain bearing date December 21, 1888, and numbered 18,668,) of which the following is a specification.

Our improvements relate to carding-engines for cotton and other fibrous materials, and consist in improved means for stripping revolving or traveling flats; and in order that our invention may be fully understood and readily carried into effect we will describe the accompanying three sheets of drawings, reference being had to the letters marked thereon.

Figure 1 is a side elevation of a carding-engine; and Figs. 2 and 3 are detail views, on an enlarged scale, illustrating the application of our invention to the stripping of the traveling flats.

Similar letters refer to similar parts throughout the several views.

In carrying out our improvements we have a stripping-card, which is passed through the wire of the flat that requires to be cleaned, and is itself cleaned by a fixed card.

In the views, *a* designates the stripping-card carried on a lever *a'*.

b indicates the position occupied by the chain of traveling flats, and *c* the fixed card, which cleans the stripping-card *a*.

On the star-wheel shaft *d* and fixed to the worm-wheel *e*, which usually drives the star-wheel shaft *d*, we fix a large pinion *f*, gearing into a small pinion *g* on a stud *h*. To the pinion *g* is fixed a toothed wheel *g'*, which gears into a small toothed wheel *i*, which has fixed upon it a hollow double cam *j*, loose on the star-wheel shaft *d*. The number of the teeth of these various wheels is so calculated that the cam *j* will make one complete revolution for each tooth on the star-wheel *d'*, which drives the chain of flats *b* passing over the pulley d^2. Working in one of the paths of the hollow double cam *j* is a bowl *k'* on a stud attached to a lever *k* and the said cam during its revolution causes the lever *k* to move up and down. This lever *k* is preferably fulcrumed at one end on what is known as the "center rocking shaft *l*" for the ordinary flat stripping-comb now dispensed with by our improvements; but it may be otherwise mounted, if preferred, and at the other end the lever *k* is connected by a pivot or stud *m* to the lever *a'*, which carries the stripping-card *a*. This stud *m* acts as the fulcrum for the second lever *a'*, and near this stud is another stud *n*, which passes through the lever *a'* and also through a sliding bar *o*, and is fixed to one of these levers and is guided in a slot *p'* in a fixed bracket *p*. The sliding bar *o*, near the other end, has a longitudinal slot, through which passes the star-wheel shaft *d*, and the said sliding bar *o* has a bowl *o'* working in the second cam-path on the double cam *j*. The function of this sliding bar *o* when moved by the cam *j* is to regulate the action of the stripping-card *a* as it moves through the wire of the flat to strip it and maintain the wire on the card *a* at a uniform depth of penetration into the wire of the flat. When the stripping-card *a*, actuated by the movement of the lever *k*, operated by the cam, has been carried forward and has stripped a flat, the continued movement of the lever *k* carries the stripping-card *a* clear of and beyond the fixed card *c*. As the stripping-card *a* is caused to return by the lever *k* it is lowered by the movement of the sliding bar *o*, and so deposits its strip upon and is effectually cleaned by the fixed stripping-card *c*. After having passed through the wire of the fixed card *c* the lever *k* will lift the stripping-card *a* and the sliding bar *o* will guide it clear of the wire on the flats *b*, so that there is no danger of their touching until the card *a* on its return-stroke strips the next flat.

Having now particularly described and ascertained the nature of our said invention, and in what manner the same is to be performed, we declare that what we claim, and desire to secure by Letters Patent of the United States, is—

1. In a carding-engine, the combination, with the traveling flats and a cleaning-card

c, of a movable stripping-card, a bracket having a bearing for the stripping-card, in which the latter is reciprocated toward and from the flats, a connection between the stripping-card and the actuating devices of the flats to effect such reciprocation, an oscillating lever connected with the stripping-card, and means for operating said lever, substantially as set forth.

2. In a carding-engine, the combination, with the traveling flats, of a movable stripping card and its supporting-lever, means for actuating said stripping-card consisting, essentially, of pinion *f*, gearing with a pinion *g*, toothed wheel *g'*, fixed to pinion *g* and gearing with toothed wheel *i*, cam *j*, and lever *k*, substantially as specified.

In testimony that we claim the foregoing as our invention we have signed our names, in presence of two witnesses, this 21st day of October, 1889.

BEN. ALF. DOBSON.
WILLIAM ISHERWOOD BROMILEY.

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