

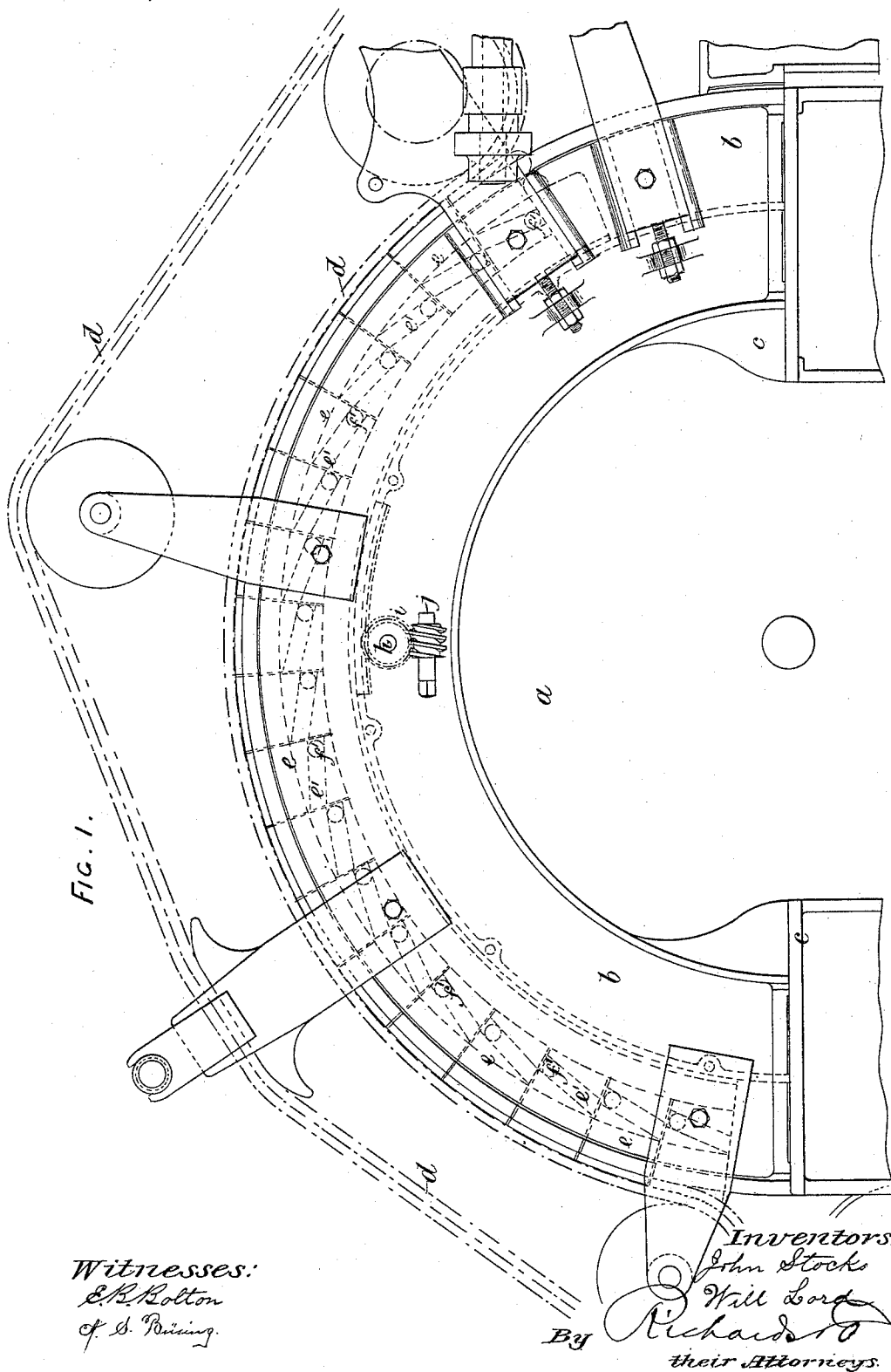
(No Model.)

2 Sheets—Sheet 1.

J. STOCKS & W. LORD.
TRAVELING FLAT CARDING ENGINE.

No. 465,545.

Patented Dec. 22, 1891.



Witnesses:
E. R. Bolton
J. S. Bussing.

Inventors:
John Stocks
Will Lord
Richardson
By  *their Attorneys.*

(No Model.)

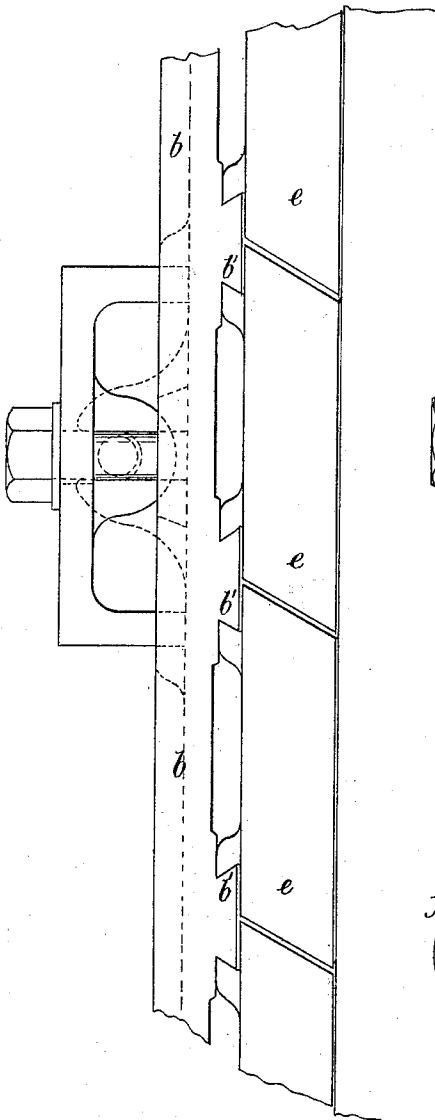
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Fig. 3.

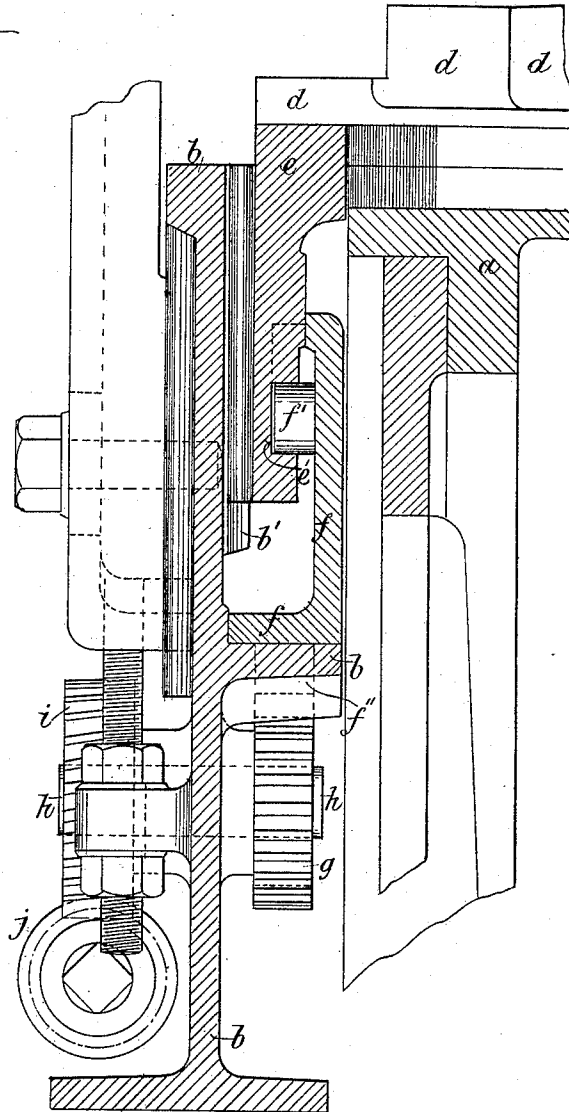


Witnesses:

E. R. Bolton

A. S. Boring

Fig. 2.



Inventors:

John Stocks

Will Lord

By *Richardson*

their Attorneys.

UNITED STATES PATENT OFFICE.

JOHN STOCKS AND WILL LORD, OF TODMORDEN, ENGLAND, ASSIGNORS TO
LORD BROTHERS, OF SAME PLACE.

TRAVELING-FLAT CARDING-ENGINE.

SPECIFICATION forming part of Letters Patent No. 465,545, dated December 22, 1891.

Application filed July 8, 1891. Serial No. 398,804. (No model.) Patented in England May 14, 1889, No. 8,009.

To all whom it may concern:

Be it known that we, JOHN STOCKS and WILL LORD, both subjects of the Queen of Great Britain, and residents of Todmorden, in the county of York, England, have invented certain new and useful Improvements in Traveling-Flat Carding-Engines, (for which we have obtained Letters Patent in Great Britain, No. 8,009, and bearing date May 14, 1889,) of which the following is a specification.

In the invention for which we obtained Letters Patent of the United States numbered 359,618, and dated March 22, 1887, we employ on each side of the engine a number of radial brackets fitted in slideways on the bend or side frame of the engine, the upper surface of these brackets being concentric to the main cylinder and forming the path or working surface upon which the flats travel.

Our present invention consists, chiefly, in an improved arrangement and combination of parts for effecting the adjustment of the radial brackets in lieu of the adjusting-screw and long arm or plate described in the specification to our said patent.

In order that our invention may be fully understood and readily carried into effect, we will describe the accompanying two sheets of drawings, reference being had to the letters marked thereon.

Figure 1 is a side elevation of a traveling-flat carding-engine to which our improvements have been applied. Fig. 2 is a transverse section, and Fig. 3 a part plan of the same.

In the views, *a* is the main cylinder of the carding-engine; *b*, the side framing or engine-bend supported upon the under framing *c*; *d*, the chain of traveling top-flats; and *e* designates the series of radial brackets, each of which is, as in our aforesaid patent, mounted in a slideway *b'*, Figs. 2 and 3, formed on the stationary bend *b*. Each radial bracket *e* has an oblique or diagonal slot or groove *e'* formed in it, into which is fitted a stud *f'*, fixed on a ring or segment *f* or equivalent part, which

is supported on a turned flange *b''*, as shown in Fig. 2. When the segment *f* is moved endwise, the studs *f'* thereon, moving in the oblique slots or grooves *e'*, force the radial brackets *e* along their slideways *b'*, and thereby adjust their position, so as to set the flats *d* nearer to or farther from the axis of the main cylinder *a*, as required.

It is obvious that the studs might be on the brackets *e* and the oblique slots or grooves in the movable segment *f* or equivalent part instead of vice versa, as above described and as shown.

Any suitable means for moving the segment *f* or its equivalent may be employed. For example, we show on the drawings rack-teeth *f''* on the under side of the segment *f*, which pass through a slot in the flange *f*, the teeth *f''* gearing into a pinion *g*, fixed on a stud *h*, which passes through and is supported by the bend *b*. Also, fixed on the stud *h* is a worm-wheel *i*, which is turned, when required, by the worm *j*, so as to move the segment *f* in either direction, as required.

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—

The combination, with the brackets *e*, fitted radially in slideways on the stationary bend *b* and provided with oblique slots or grooves *e'*, of the movable segment *f*, having studs *f'* projecting into said slots or grooves, substantially as and for the purposes herein described.

In witness whereof we have hereunto set our hands in presence of two witnesses.

JOHN STOCKS.
WILL LORD.

Witnesses:

H. B. BARLOW,
S. W. GILLET.