

(No Model.)

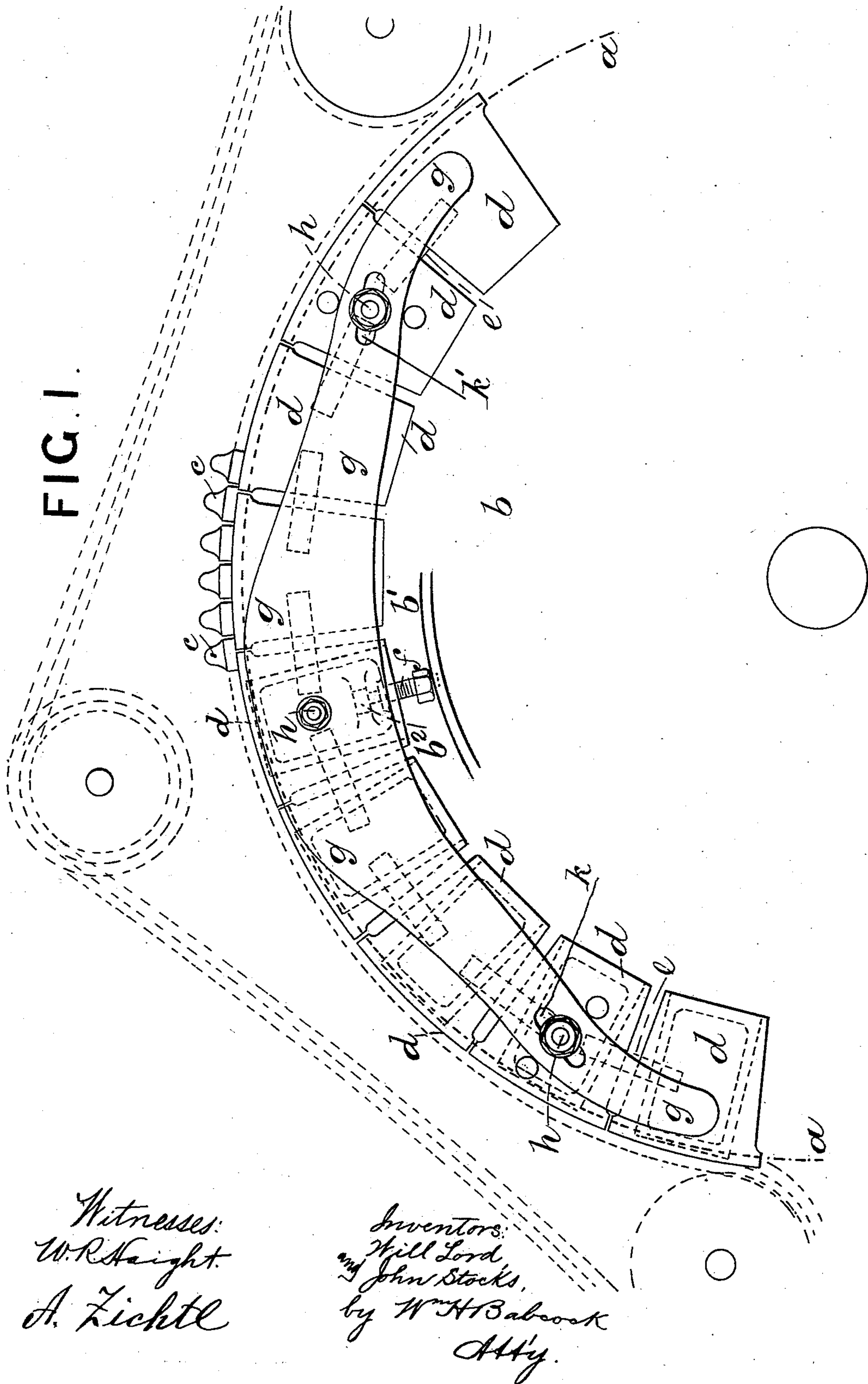
3 Sheets—Sheet 1.

W. LORD & J. STOCKS.  
CARDING ENGINE.

No. 359,618.

Patented Mar. 22, 1887.

FIG. 1.



Witnesses:  
W. R. Haight.  
A. Zichtl

Inventors:  
Will Lord  
and John Stocks,  
by W. H. Babcock  
Att'y.

(No Model.)

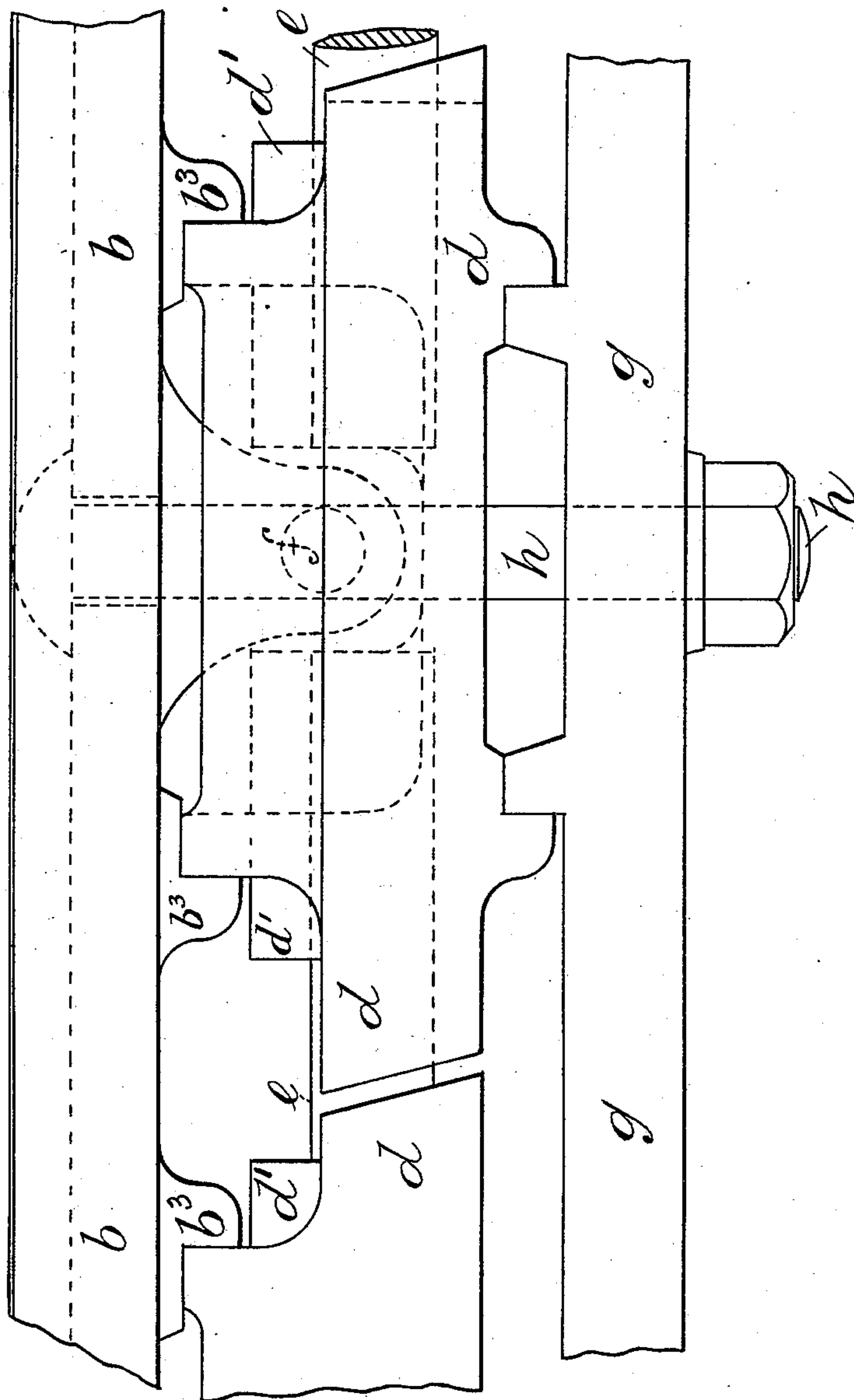
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W. LORD & J. STOCKS.  
CARDING ENGINE.

No. 359,618.

Patented Mar. 22, 1887.

FIG. 2.



Witnesses:  
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Will Lord,  
and John Stocks.  
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(No Model.)

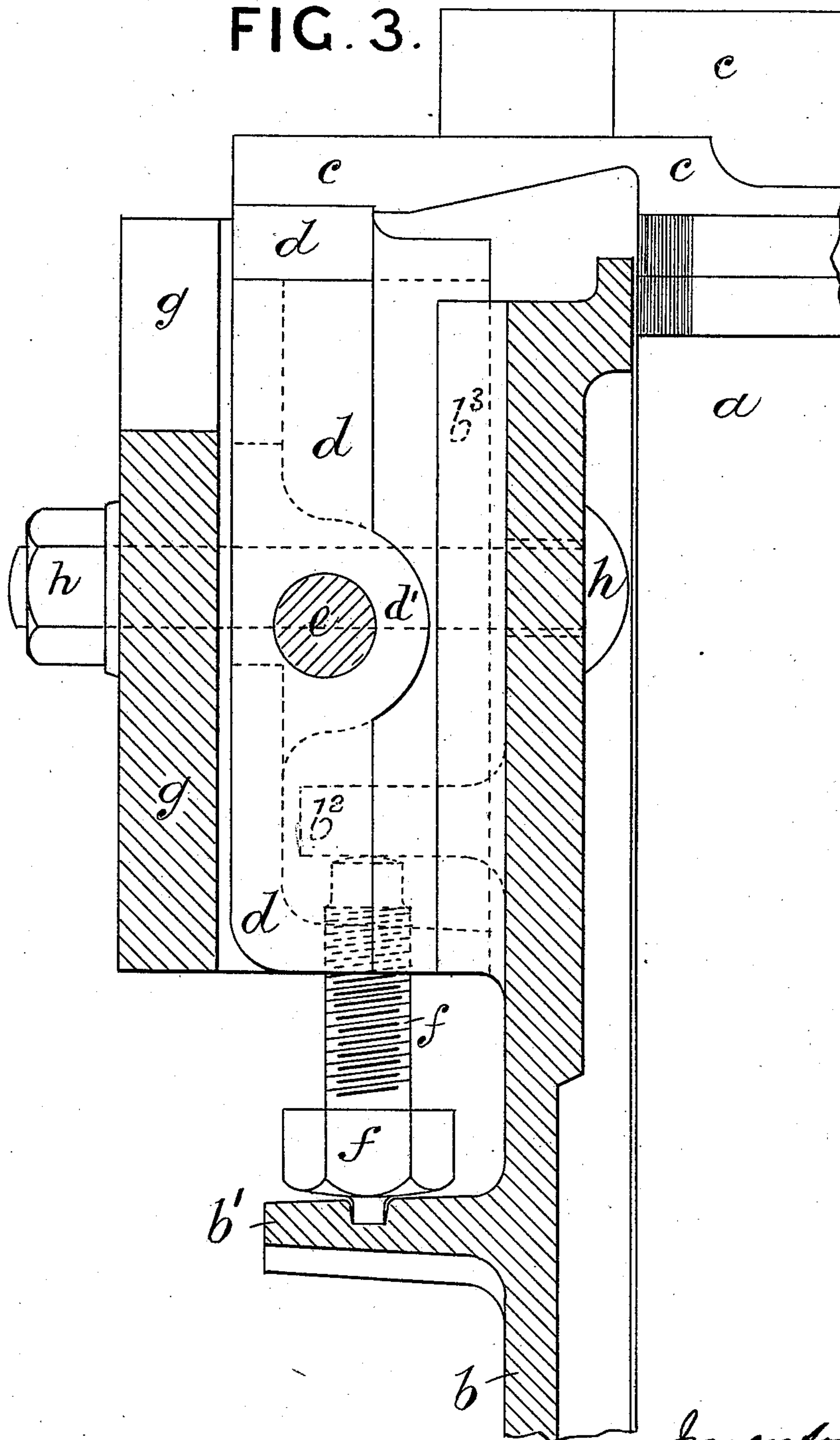
W. LORD & J. STOCKS.  
CARDING ENGINE.

3 Sheets—Sheet 3.

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FIG. 3.



Witnesses:  
W. R. Haight,  
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Inventors:  
Will Lord,  
John Stocks,  
by W. H. Babcock  
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# UNITED STATES PATENT OFFICE.

WILL LORD AND JOHN STOCKS, OF TODMORDEN, COUNTY OF YORK,  
ENGLAND.

## CARDING-ENGINE.

SPECIFICATION forming part of Letters Patent No. 359,618, dated March 22, 1887.

Application filed November 30, 1886. Serial No. 220,241. (No model.)

*To all whom it may concern:*

Be it known that we, WILL LORD and JOHN STOCKS, both subjects of the Queen of Great Britain, residing at Todmorden, in the county of York, England, have invented certain new and useful Improvements in Carding-Engines, of which the following is a specification.

Our invention relates to improvements in carding-engines having traveling top-flats, the object of our improvements being to dispense with the ordinary flexible bends and to provide accurate and reliable mechanism for effecting the adjustment of the flats concentrically to the main cylinder. We attain this object by the mechanism illustrated in the accompanying three sheets of drawings, in which—

Figure 1 is a side elevation of a portion of a carding-engine to which our improvements have been applied. Figs. 2 and 3 are detailed views, on an enlarged scale, of parts of the same.

*a* designates the main cylinder, and *b* the engine-bend, on which are cast two ledges or flanges, *b'* *b''*, respectively. *c* indicates the revolving flats, and *d* the radial brackets, upon the surface of which the revolving flats travel. In the drawings nine of these brackets *d* are shown; but any other suitable number may be employed. Each bracket *d* is set radially, and is free to slide to or from the axis of the main cylinder in slideways *b''*, formed on or secured to the bend *b*. Each bracket is connected to its adjoining bracket or brackets, so that when one bracket moves all the others move with it, and this is effected by means of the following arrangement:

At the back of each bracket *d* are cast two bosses or projections, *d'*. In the case of each of the two end brackets there need only be one such boss. One end of a stud, *e*, projects into a hole formed to receive it in one boss *d'*, and the other end of the stud *e* projects into a similar hole in the adjacent boss *d'* on the next bracket. The brackets are also held in place by an arm or plate, *g*, which is secured to the central and two other brackets by bolts *h*. Near the ends of said arm or plate *g* are slots *k k'*, which allow the free movement of said

arm or plate and brackets while they are being adjusted. An adjusting-screw, *f*, passes through the lower portion of the central bracket *d*, the head of the screw resting on the ledge *b'*, and the other end in or against the ledge *b''*.

The upper surface of each bracket *d* is turned or ground so as to form a surface concentric to the main cylinder. The revolving flats, as already stated, travel on this surface, and when it is required to adjust the flats to or from the axis of the main cylinder it is only necessary to slacken the bolts *h* and turn the screw *f*, whereby all the brackets *d* are moved simultaneously.

Having stated the nature of our invention and described the manner of performing the same, we declare that what we claim, and desire to secure by Letters Patent of the United States, is—

1. In combination with the main cylinder of a carding-engine and a set of traveling flats, a number of radial brackets having their upper surfaces concentric with said cylinder, a relatively-fixed part having slideways for said brackets, connections, substantially as described, between the several brackets, and an adjusting-screw, whereby all of the said brackets may be moved simultaneously, substantially as set forth.

2. The combination, with the adjusting-screw *f*, of the radial brackets *d*, provided with the bosses *d'*, the bend *b*, having slideways in which said brackets are held, the studs *e*, the arm or plate *g*, and connections between said arm or plate and said brackets, all operating substantially as herein set forth and described.

The foregoing specification of our improvements in carding-engines signed by us this 5th day of November, 1886.

WILL LORD.  
JOHN STOCKS.

Witnesses:

H. B. BARLOW,  
S. W. GILLET,  
Both of 17 St. Ann's Square, Manchester.