

No. 720,150.

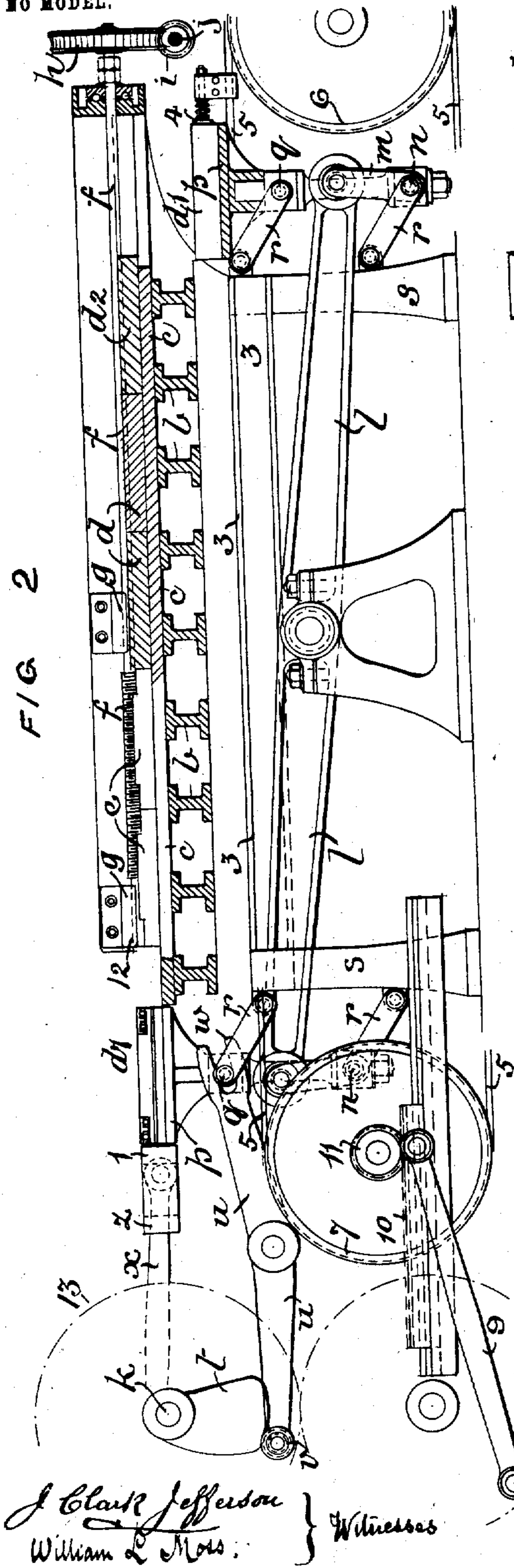
PATENTED FEB. 10, 1903.

J. INGLEBY.  
CONTINUOUS PRESS.  
APPLICATION FILED FEB. 28, 1902.

2 SHEETS-SHEET 1.

NO MODEL.

FIG. 2



J. Blair Jefferson }  
William L. Moss. } Witnesses

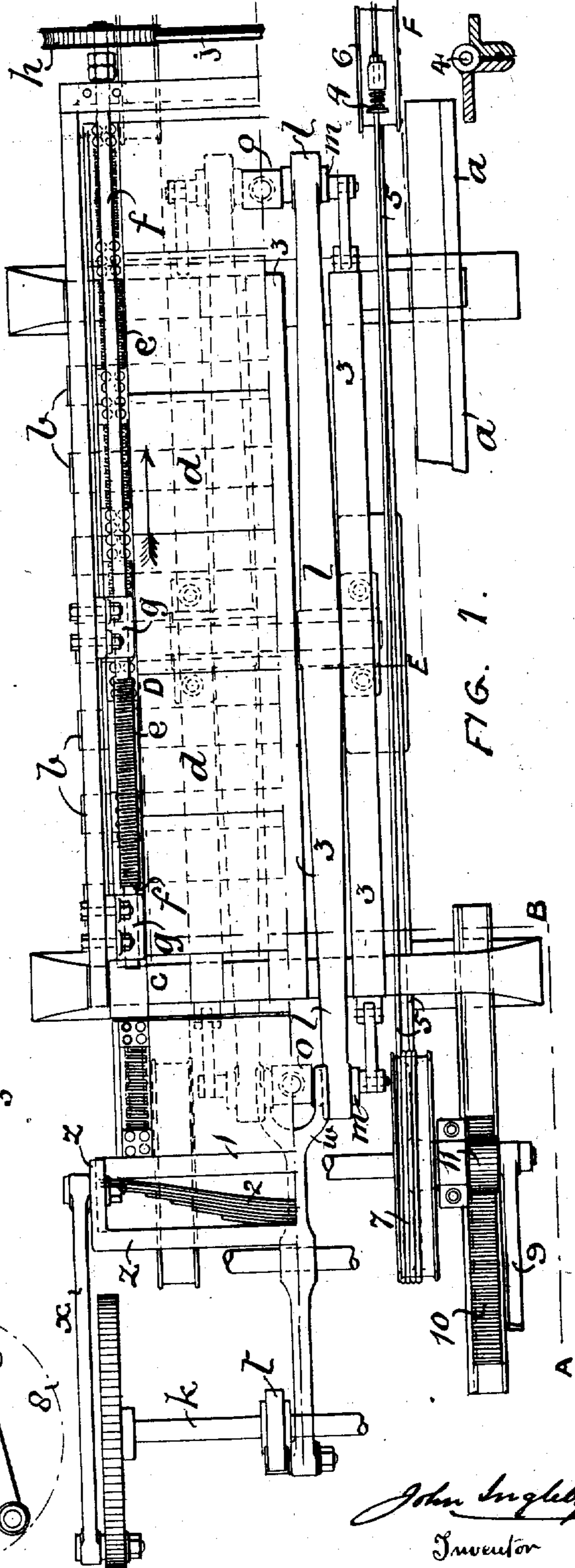


FIG. 1.

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NO MODEL.

2 SHEETS—SHEET 2.

FIG 3

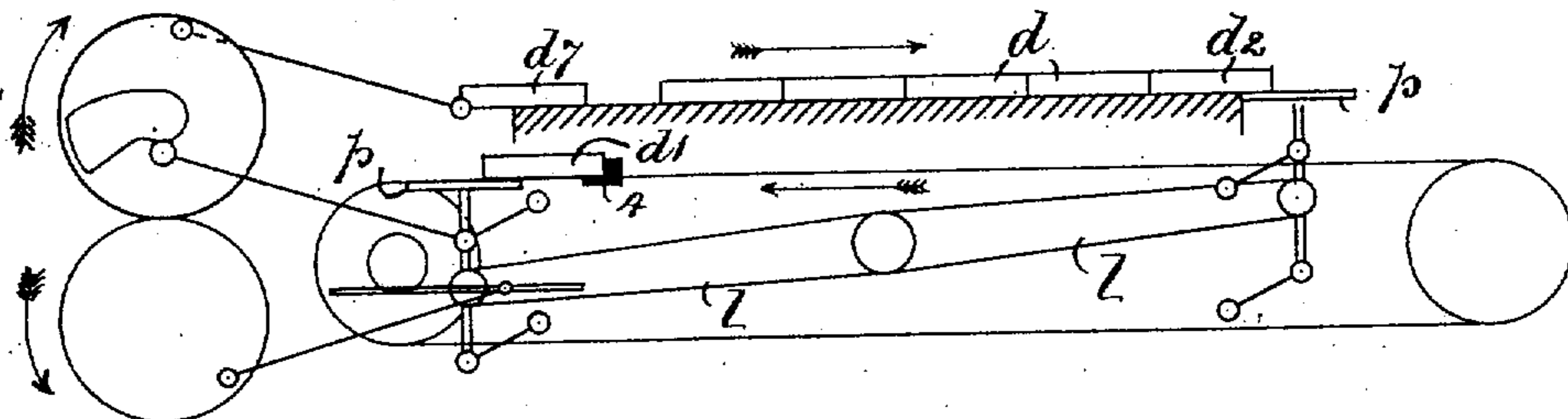


FIG 4

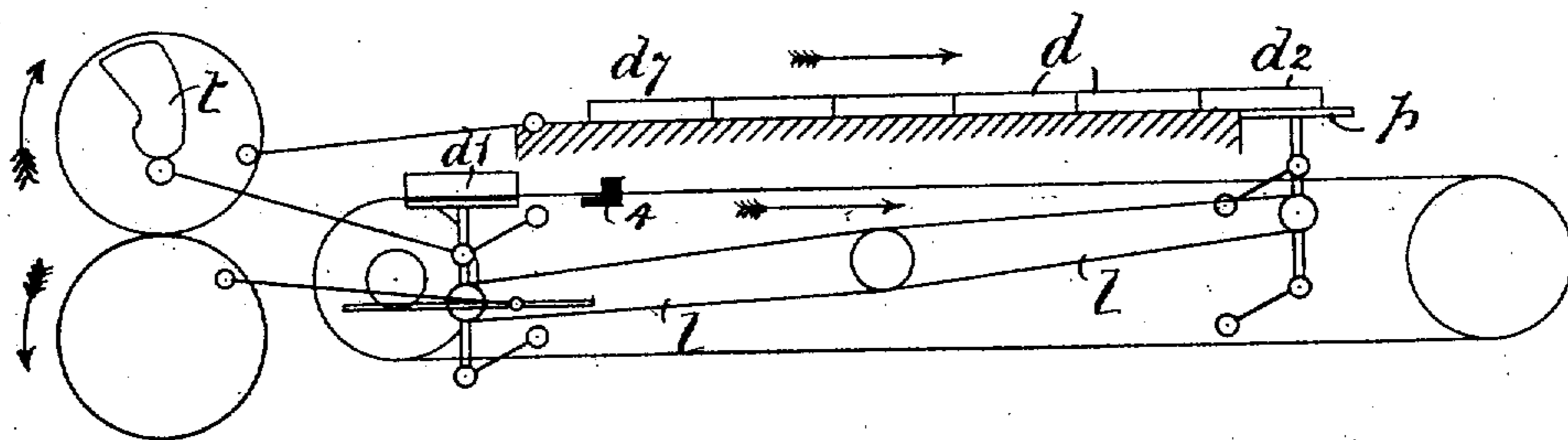
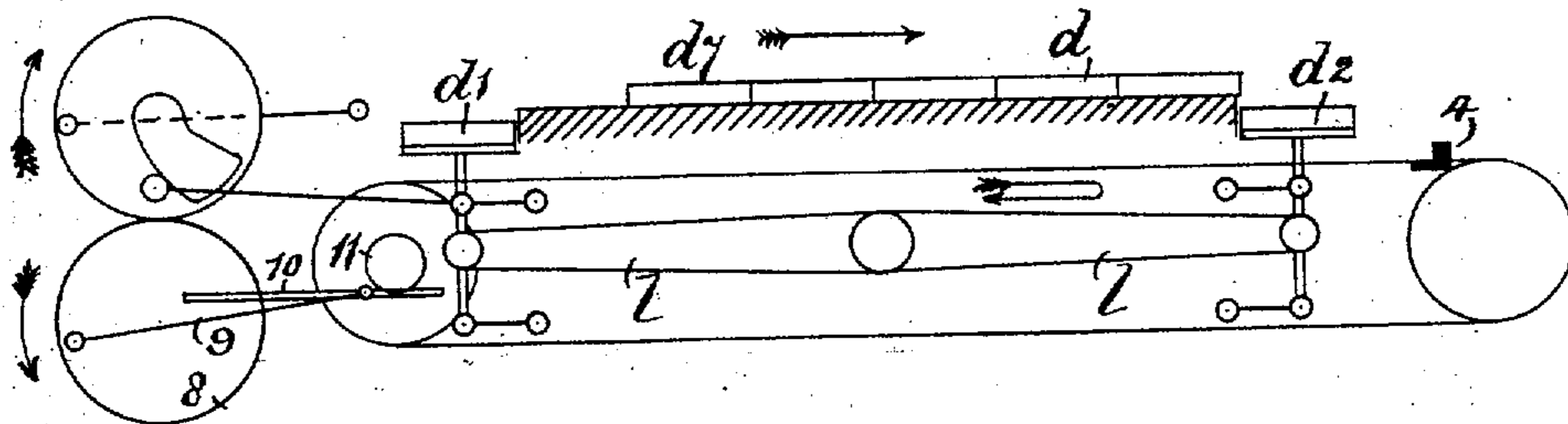


FIG 5



*Clair Jefferson*  
*William L. Moss.* } Witnesses

*John Ingleby*  
Inventor.

# UNITED STATES PATENT OFFICE.

JOHN INGLEBY, OF LEEDS, ENGLAND.

## CONTINUOUS PRESS.

SPECIFICATION forming part of Letters Patent No. 720,150, dated February 10, 1903.

Application filed February 28, 1902. Serial No. 96,185. (No model.)

To all whom it may concern:

Be it known that I, JOHN INGLEBY, a subject of the King of Great Britain and Ireland, and a resident of Leeds, in the county of York, England, have invented a certain new and useful Improvement in Continuous Presses, of which the following is a specification.

The object of the present invention is to provide a firm bed which continuously travels in one direction over a definite length, the table being constantly renewed at one end and shortened at the other end as fresh material comes onto it or leaves it. In other words, the main object is to secure the advantages as regards regularity and continuity of motion which are offered by flexible bands or tables, with the advantages of rigidity and strength, such as have hitherto been obtained only by the use of fixed or reciprocating or intermittently-moved tables.

Tables constructed to attain the above object are well adapted for machines used in the manufacture of linoleum, where the material is fed onto or under to a textile backing and afterward subjected to great pressure, for the pressing and waterproofing of cloth, for sheet-ironing and other machines where the sheet of material to be made or pressed is very many times the length available for a carrying and pressing table.

I attain the above object by constructing such tables of a series of blocks supported on suitable guides or slides and which are advanced from the rear or feed end by a pushing motion between the blocks, the foremost block being removed from the front by raising or lowering it, while an extra block is added to the rear by lowering or raising it by the tilting in one direction of a long balanced lever or levers carrying *pro tempore* the said blocks, while during the interval prior to the tilting of the said lever in the opposite direction the withdrawn block is traversed above or below the table back to the starting end, the advance of the rest of the blocks being regularly and uninterruptedly continued during the whole of the time by rack-and-pinion or screw-and-nut mechanism. The invention comprises means for moving the block being added up to and into contact with the one in front of it and into connection with the said advancing mechanism without shock and for

removing the foremost block without any rubbing or sliding of its rear edge against the front of the block next behind it. These means are illustrated by the accompanying drawings, to which reference is had in the following description.

Figure 1 is a plan, the lower half having the blocks and the advancing screw mechanism and cross-guides removed to show more clearly the side lever and the return-slides. Fig. 2 is a longitudinal elevation and section on line A B C D E F of Fig. 1. Figs. 3, 4, and 5 are diagrammatic elevations showing the positions of the various parts during the other three parts of the cycle in which the machine operates.

*a* indicates the outer side frames of the machine carrying the cross-girders *b*, on which rest the longitudinal slide-pieces *c*, carrying the table-blocks *d*, which latter are accurately guided during their advance in the direction indicated by the arrow in Fig. 1. To the sides of each block are connected half-nuts of considerable length, in which the screwed part of the shaft *f* works as the half-nuts pass under the same. The rest of the screw-shaft is turned down to the bottom of the screw-threads, so that the plain part rests on the top of the threads of the half-nuts and is held down and steadied by plain semicircular caps *g*, which allow the half-nuts to pass beneath them. It will be evident that the blocks in front of the screwed part of the shafts *f* are moved only by the pushing action of the blocks behind them, whereby the close contact of adjoining edges of the blocks is insured. The shafts *f* may be rotated by worm-wheels *h* and worms *i* on the cross-shaft *j*, the latter being driven by any convenient means or connections in a positive manner from the main driving-shaft *k*.

*l l* indicate a pair of two-armed levers carrying at their ends, by means of side links *m*, cross-bar *n*, and cross-head piece *o*, the platens *p* to receive and respectively lower and raise the blocks *d*. In order to guide the cross-head piece *o* vertically and to insure that the foremost block is withdrawn without any rubbing movement of its rear edge against the front edge of the next-following block, the cross-bars *n* and *q* are connected to links *r*, hinged to the end standards *s*, so as to con-

stitute, with the cross-head piece *o*, a parallel motion, the horizontal movement of which has during the proper time a greater speed than that of the advance of the blocks due to the screws *f*. The time just referred to is that during which the foremost block is moving out of line with the rest of the blocks. The movement of the levers *l* is effected in the one direction from the cam *t* on the main driving-shaft *k* by means of the two-armed lever *u*, the one end of which carries a cam pin or roller *v* and the other end a double fork *w*, embracing the top cross-bar *q*, the movement in the opposite direction being effected by a weight attached either to the levers *l* or the lever *u*. The block to be added is pushed off the platen and up to the preceding block and held there until its half-nut is properly engaged with the screwed part of the shaft *f* by means of connecting-rods *x*, carrying between them a frame *z*, in which is fitted, capable of a slight sliding motion, the pusher-bar 1, with a spring 2 between it and the frame *z*. The block, withdrawn from the front end and dropped down to the level of the return longitudinal slides 3, is pushed off its platen and onto and along the return-slides 3 by the spring-cushioned pushers 4, which are clamped to the two wire ropes 5, the latter passing around the guide-pulleys 6 and with both their ends coiled in opposite directions several times around and secured to the driving-drums 7. These driving-drums 7 are reciprocated from the main driving-shaft *k* by means of the crank-pin gear-wheel 8, connecting-rod 9, sliding rack 10, and rack-pinion 11 on the axle of the drums 7.

The working of the machine is clearly indicated by Figs. 2, 3, 4, and 5. In Fig. 2 the foremost block *d'* has just been dropped by its platen and is ready to be pushed onto and along the return-slides 3, while the block *d'* to be added has just been raised by the corresponding platen to the level of the top slides *c* and ready to be pushed forward by the pusher-bars. In Fig. 3 the levers *l* and platens *p* have reverted, respectively, to their former positions, the withdrawn block having in the meantime returned along the lower slide and is being pushed onto the platen at the rear end of the machine, and the block being added has been pushed so far along the top slides as to be independent of the support of the dropped platen, while the now foremost block is being pushed over the lowering or withdrawing platen. In Fig. 4 the return-pushers 4 are moving back to reach their starting position before the now foremost block is completely carried by the corresponding platen and must reach such start-

ing position before the said platen has completed its descent and the other platen its rise, as shown in Fig. 5.

It will be evident that the half-nuts *e* may be replaced by racks and the screws *f* by pinions gearing with said racks, also that the ropes or chains 5, provided with pushing projections and driven at the proper speed, may be arranged to be driven continuously in the return-pushing direction or intermittently instead of being reciprocated.

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

1. The combination of a series of blocks *d* with half-nuts *e* attached to their sides supporting guide-slides *c* pushing screws and shafts *f* rocking levers *l* lifting and lowering platens *p* connected by a parallel-motion device to the ends of said levers *l* reciprocated cushioned pusher *z*<sup>12</sup> connecting-rods *x* operating forked levers *u* cam *t* return-slides 3 return-pusher 4 chains 5 guide-wheel 6 driving-wheel 7 pinion 11 rack 10 connecting-rod 9 gear-wheels 8 and 13 and driving-shaft *k* all substantially as set forth.

2. The combination of a series of blocks *d* with half-nuts *e* attached to their sides pushing screws and shafts *f* guide-slides *c* lifting and lowering platens *p* pusher *z*<sup>12</sup> connecting-rod *x* crank *y* and driving-shaft *k* substantially as set forth.

3. The combination of a series of blocks *d* with nuts *e* attached to their sides pushing screws and shafts *f* guide-slides *c* lifting and lowering platens *p* rocking levers *l* connected by parallel-motion device *m n o q r* to the platens *p* pusher *z*<sup>12</sup> connecting-rod *x* forked lever *u* cam *t* and driving-shaft *k* substantially as set forth.

4. The combination of side levers *l* lifting and lowering platens *p* parallel-motion device *m n o q r* forked lever *u* cam *t* and driving-shaft *k* substantially as and for the purpose specified.

5. The combination of side levers *l* lifting and lowering platens *p* parallel-motion device *m n o q r* return-slides 3 return-pushers 4 chains or ropes 5 guide-pulleys 6 and driving-pulleys 7 substantially as and for the purposes specified.

6. The combination of a series of blocks *d* with attached half-nuts *e* pushing screws and shafts *f* and guide-slides *c* substantially as and for the purpose specified.

JOHN INGLEBY.

Witnesses:

J. CLARK JEFFERSON,  
WILLIAM L. MOSS.