

No. 720,149.

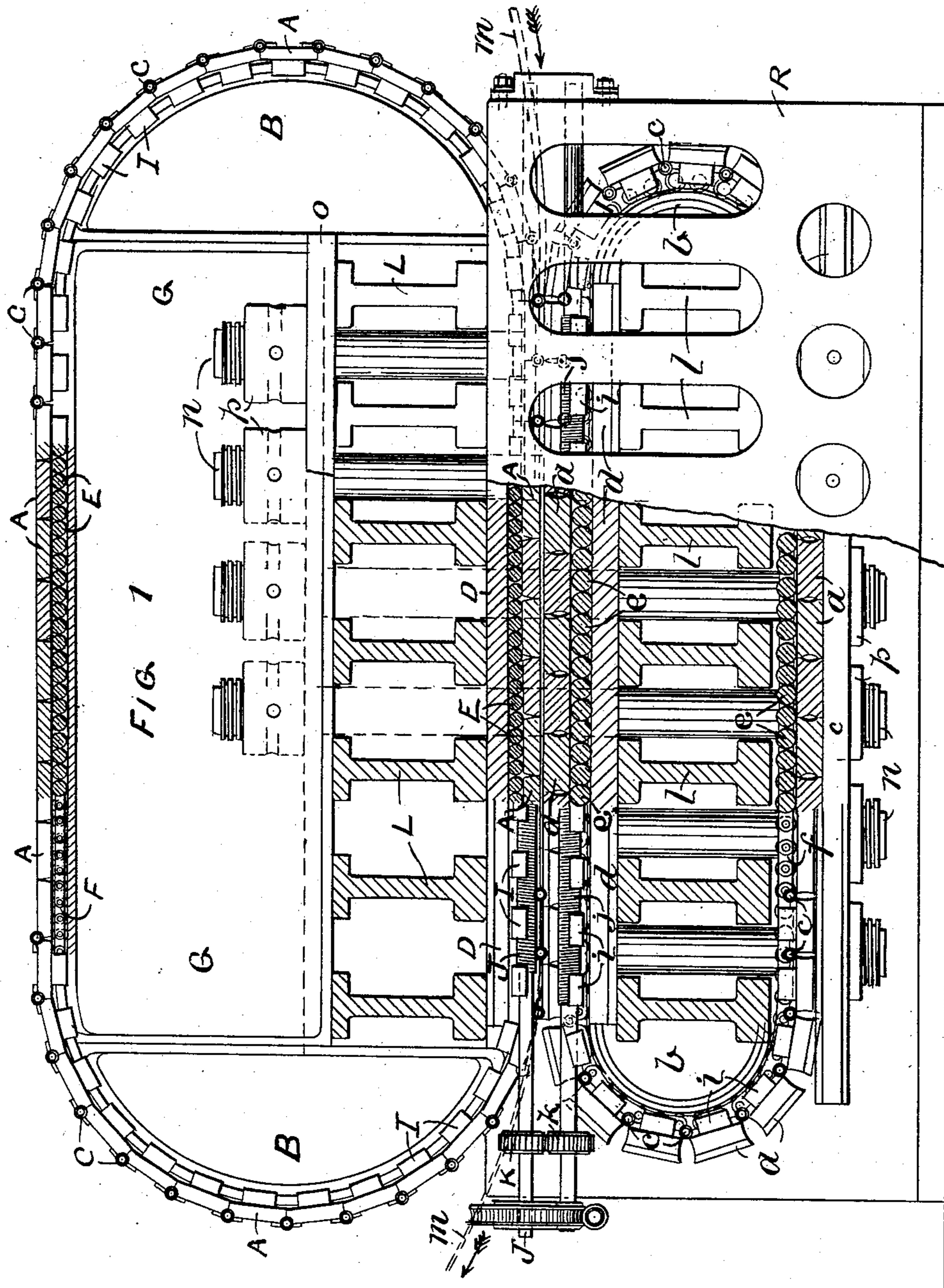
PATENTED FEB. 10, 1903.

J. INGLEBY.
CONTINUOUS TRAVELING TABLE.

APPLICATION FILED FEB. 28, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



J. Clark Jefferson
William A. Moss } Witnesses

John Ingley
Inventor

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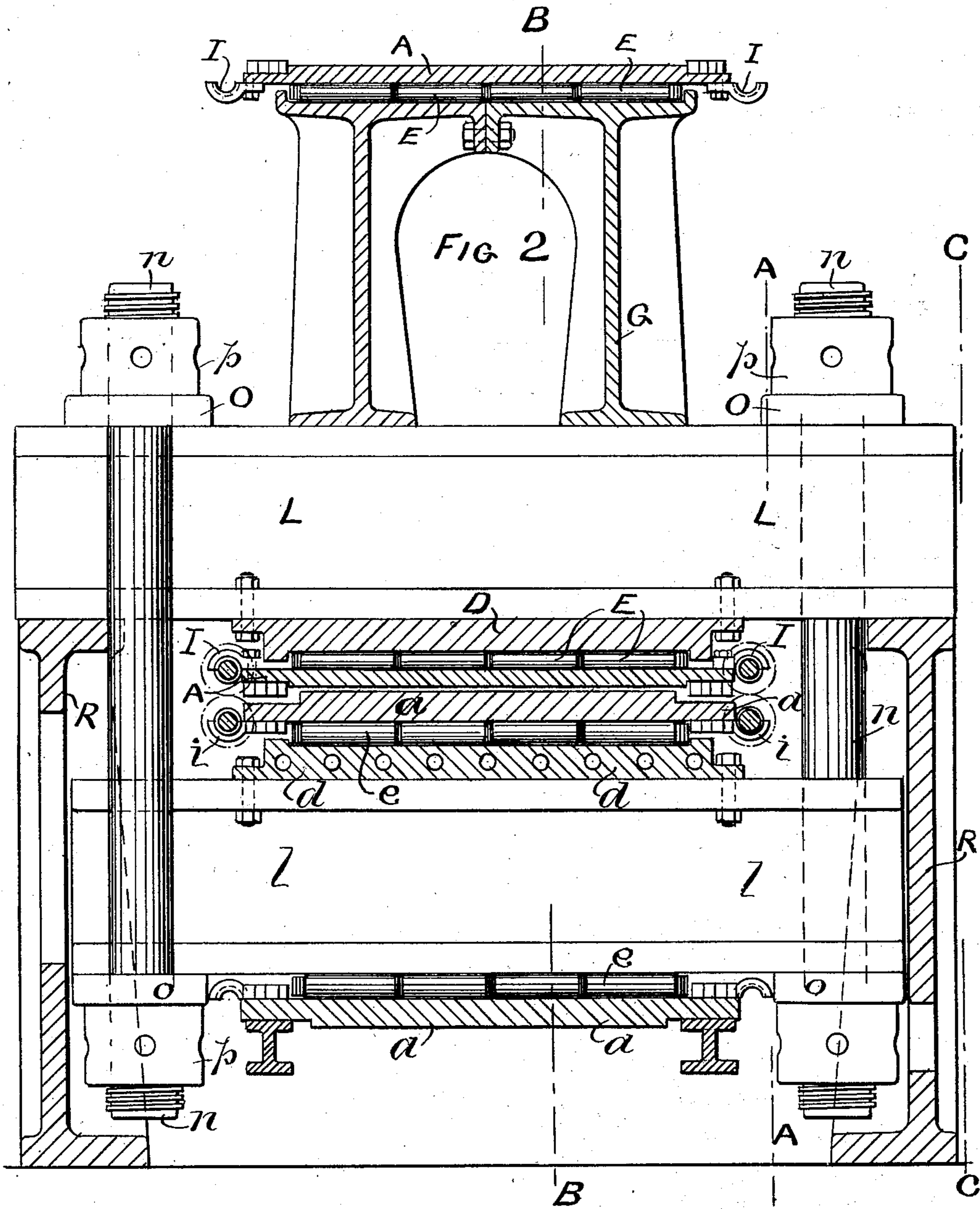
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John Ingleby
Inventor

UNITED STATES PATENT OFFICE.

JOHN INGLEBY, OF LEEDS, ENGLAND.

CONTINUOUS TRAVELING TABLE.

SPECIFICATION forming part of Letters Patent No. 720,149, dated February 10, 1903.

Application filed February 28, 1902. Serial No. 96,184. (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 Traveling Tables, of which the following is a specification.

The object of this invention is to combine the advantages of continuity of action obtained in press-rolls, calendering-machines, and other rotary presses without the disadvantage that these possess in certain cases of soft or plastic material in that the material is caused to flow backward, and is thus reduced in thickness by removal of the material instead of by consolidation. In certain cases—as, for example, in the manufacture of inlaid linoleums, in which it is desired to keep the pattern or design unaltered through the full thickness of the material—such presses cannot be used and the material is usually consolidated by ordinary flat presses acting successively on different parts of the material—that is, intermittently. The use of endless aprons of leather, rubber, and cloth avoids the above disadvantage negligible where the pressure is not great; but they are not applicable in cases such as the manufacture of inlaid linoleums, where the pressure is so great as to require great strength and rigidity in the pressing-surfaces. Now I overcome these objections by the use of two endless aprons or belts formed of blocks hinged together and arranged the one above the other, the adjoining sides of the two aprons being guided and traveling in the same direction and usually at the same speed and gradually approaching nearer to each other as they reach the end of their straight travel. Both aprons or belts are moved by means of half-nuts or racks attached at each side of the blocks and screws or pinions engaging with the same and pass, respectively, around rectangular frames with semicircular ends, a series of antifriction-rollers being interposed between the slides or guides of the frames and the apron or belt of blocks. The rollers are connected close together by end spacing-links, and for the purpose of having the junctions between adjoining blocks closed absolutely tight over the parts, inclosing for the time being the material to be consolidated

and pressed, the blocks of the top apron are hinged with the centers of the hinges in line with the outside surfaces of the blocks, while the hinges of the lower apron are preferably, though not necessarily, near the inner sides of the blocks. Both frames are held rigidly together in their exact relative positions to produce the desired compression by stout end bolts, with nuts bearing on continuous cap-pieces over the ends of girders, or the feeding ends of the frames may be firmly held at such distance apart, while the delivery ends may be drawn toward each other by a hydraulic cylinder on each side. These means are illustrated in the accompanying drawings.

Figure 1 is a longitudinal elevation and part section on lines A A, B B, and C C of Fig. 2, which is a vertical cross-section to a slightly larger scale.

A indicates the blocks of the top apron, and a those of the lower apron.

C and c are respectively the side hinges of the same, the centers of the hinges C being in line with the upper surface of the blocks A. The adjoining end faces of the blocks A are beveled inward by the amount necessary to allow them to pass around the semicircular ends B.

D and d are strong longitudinal guides or slides for guiding the adjoining sides of the two aprons, between which and the inner sides of the blocks, respectively, are inserted the antifriction-rollers E and e. These latter are secured together, respectively, and properly spaced by the side links F and f. The rectangular and semicylindrical side frames G B and b are likewise formed with or as guide-races to receive the antifriction-rollers and guide them around the rest of the frames.

The blocks A a are provided at each side with long half-nuts I and i, respectively engaging with the screws J and j and usually geared together, so as to move around each apron at a constant uniform speed in the same direction, though where it is desired to have a slightly-polishing action the speeds of the two aprons may be different. If one screw is right and the other left handed, the screws J and j may be geared directly together by pinions K and k, while if the screws are of the same hand an intermediate wheel must connect the pinions K and k in order that both

may advance in the same direction. By hinging the blocks A, as shown, the surface joints between them are always kept closed, and by placing the center of the semicircular end B in advance of that of the end *b* the material *m*, being fed as shown, does not come into contact with the surface of either set of blocks without the joints of the blocks being quite closed, the material being fed, as shown, with a slight downward inclination. In the same manner provision is made for the sheet of material leaving the blocks without coming in contact with any gapping joints between the blocks.

L and *l* are strong cross-girders carrying the top frame G B and the bottom slide *d*, respectively, and these girders are connected together by stout bolts *n*, cap-pieces O and *o* being inserted between the nuts *p* and the girders. The whole machine is carried from the side frames R by making the top girders L so much longer than the bottom girders *l* that their ends can rest on the top of the side frames R. The nuts *p* on the ends of the bolts *n* are screwed up, so that the adjoining surfaces of the apron are at the proper distances apart at the entering and delivery ends, respectively.

It will be evident that racks may be attached to the sides or under sides of the blocks in place of the long half-nuts and the long screws replaced by pinions gearing with the racks, also that the screw-bolt and cap connection between the top and bottom cross-girders may be replaced toward the delivery end by a hydraulic cylinder and piston arrangement for cases where it is desirable to have the pressure under control. In certain cases, also, it may be possible or desirable to dispense with one of the aprons of linked blocks A or *a*, making at the same time the length of the corresponding antifriction-rollers equal to the full width of the blocks of the other apron. Lastly, I contemplate also the use of the upper series of linked blocks and the means for transmitting pressure through them when traveling along the under side of the upper guides D, in combination with the continuous traveling table, the subject of application for patent of same date as this present one.

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

1. In continuous presses the combination of two series of linked blocks A *a* having half-

nuts I and *i* attached respectively to the sides of the blocks guides or slides D and *d* held slightly nearer together at one end than the other rectangular and semicylindrical guide-frames G and B and *b* antifriction-rollers E and *e* interposed between the blocks A *a* and the guides or slides D *d* and the guide-frames G B and *b* respectively and longitudinal screws J and *j* cross-girders L and *l* cap-pieces O and *o* bolts *n* and side frames R all substantially as set forth.

2. In continuous presses the combination of two series of linked blocks A and *a* having half-nuts I and *i* attached respectively to the sides of the blocks guides or slides D and *d* held slightly nearer together at one end than the other rectangular and semicylindrical guide-frames G B and *b* antifriction-rollers E and *e* interposed between the blocks A and *a* and the guides or slides D and *d* and the guide-frames G B and *b* respectively and longitudinal screws J and *j* all substantially as set forth.

3. In continuous presses the combination of two series of linked blocks A and *a* with half-nuts I and *i* attached respectively to their sides guides or slides D and *d* held slightly nearer together at one end than the other antifriction-rollers E and *e* interposed between the blocks A and *a* and the guides or slides D and *d* respectively and longitudinal screws J and *j* substantially as set forth and for the purpose specified.

4. In continuous presses the combination of a series of linked blocks A having half-nuts I attached to their sides a guide or slide D rectangular frame G semicircular end guide-frames B antifriction-rollers E interposed between the blocks A and the guides or slides D and frames G and B and longitudinal screw J substantially as and for the purpose or purposes specified.

5. In continuous presses the combination of a series of traveling blocks A linked or hinged together about their outer adjacent edges or corners with a series of traveling blocks *a* linked or hinged together about or within their inner adjacent edges or corners and guides or slides D and *d* placed slightly closer together at one end than the other end substantially as and for the purpose specified.

JOHN INGLEBY.

Witnesses:

J. CLARK JEFFERSON,
WILLIAM L. MOSS.