

No. 702,260

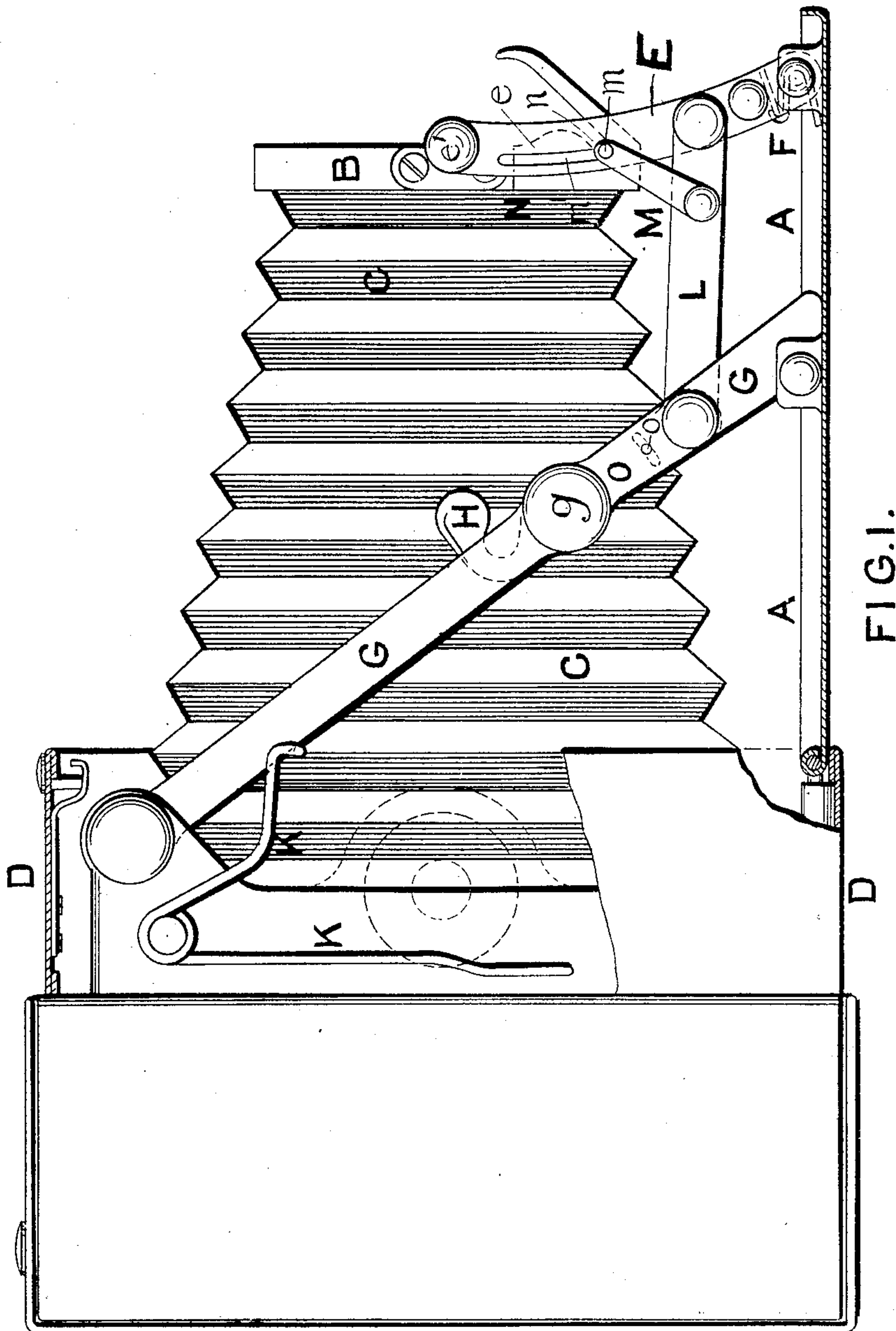
Patented June 10, 1902.

J. E. THORNTON.
PHOTOGRAPHIC CAMERA.

(Application filed Jan. 8, 1900.)

(No Model.)

4 Sheets—Sheet 1.



WITNESSES.

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4 Sheets—Sheet 2.

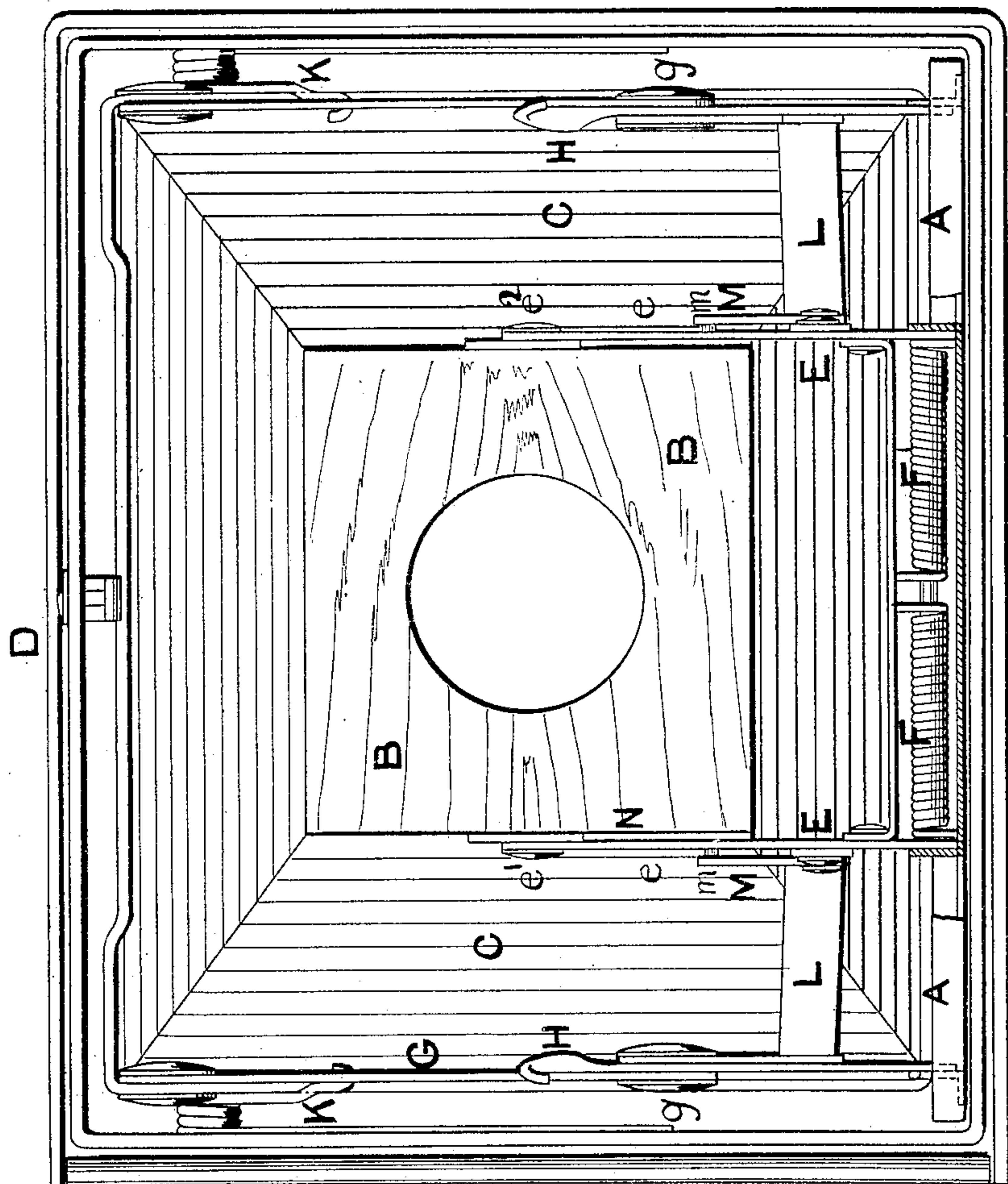


FIG. 4.

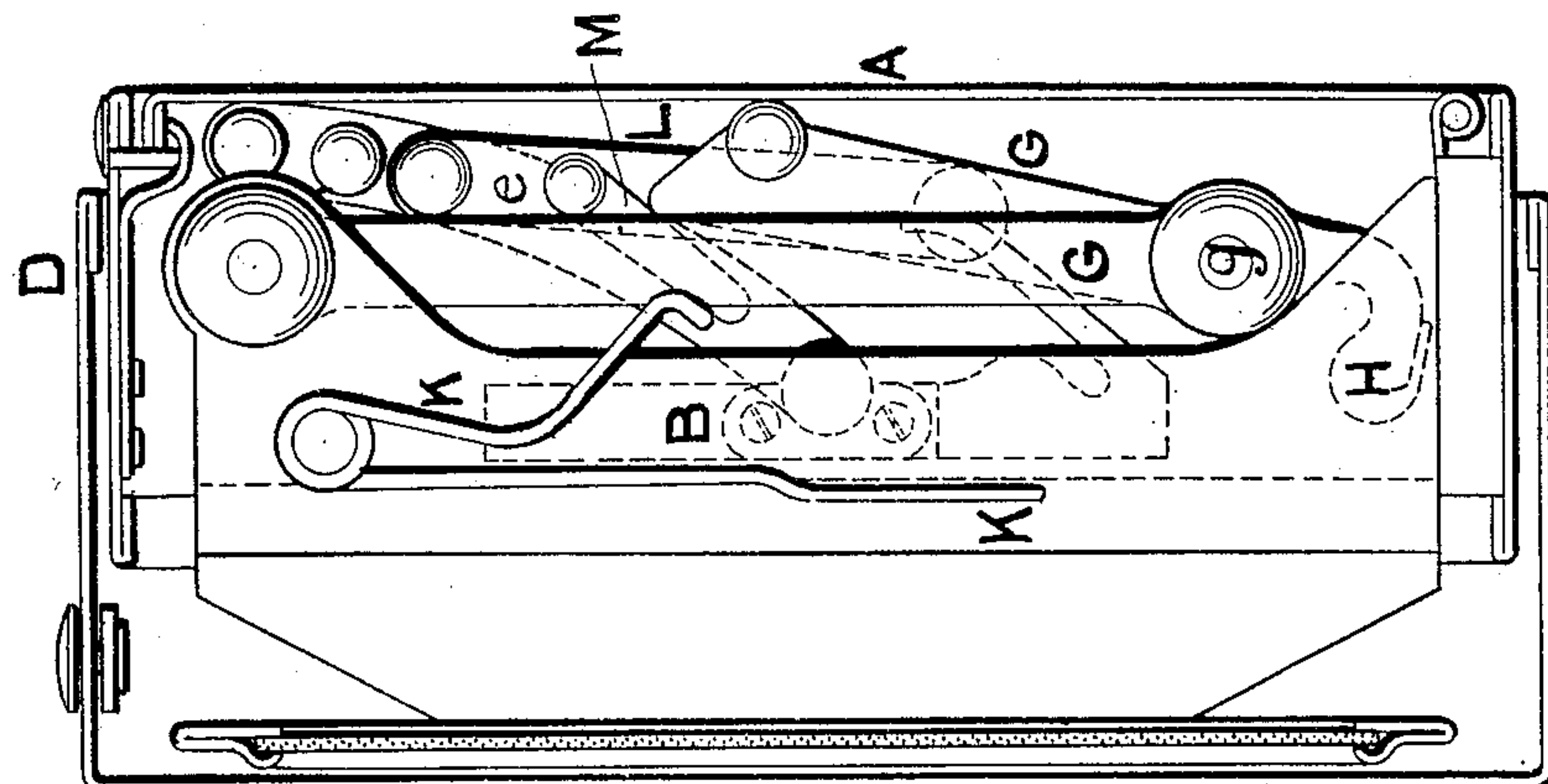


FIG. 2.

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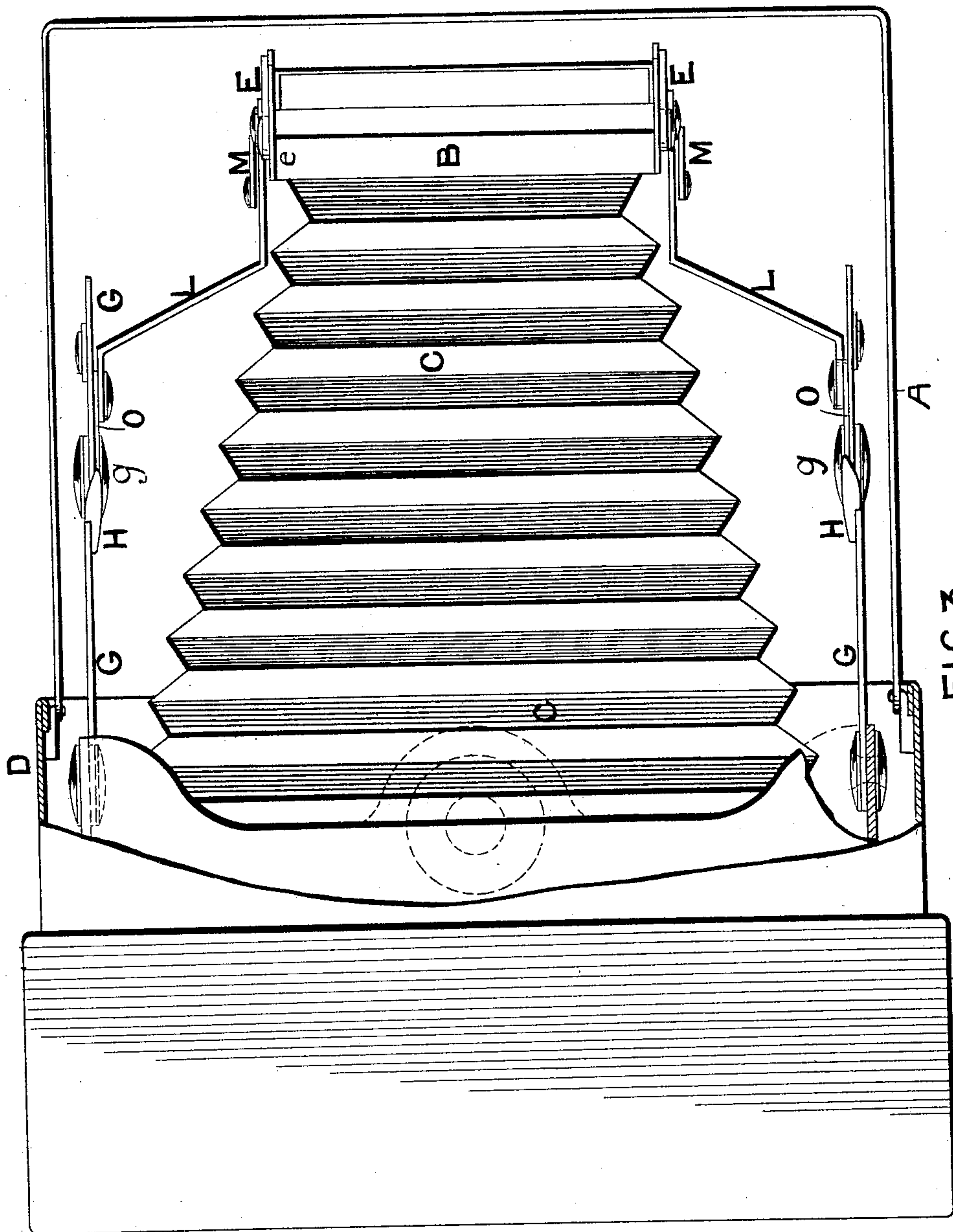
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4 Sheets—Sheet 3.



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4 Sheets—Sheet 4.

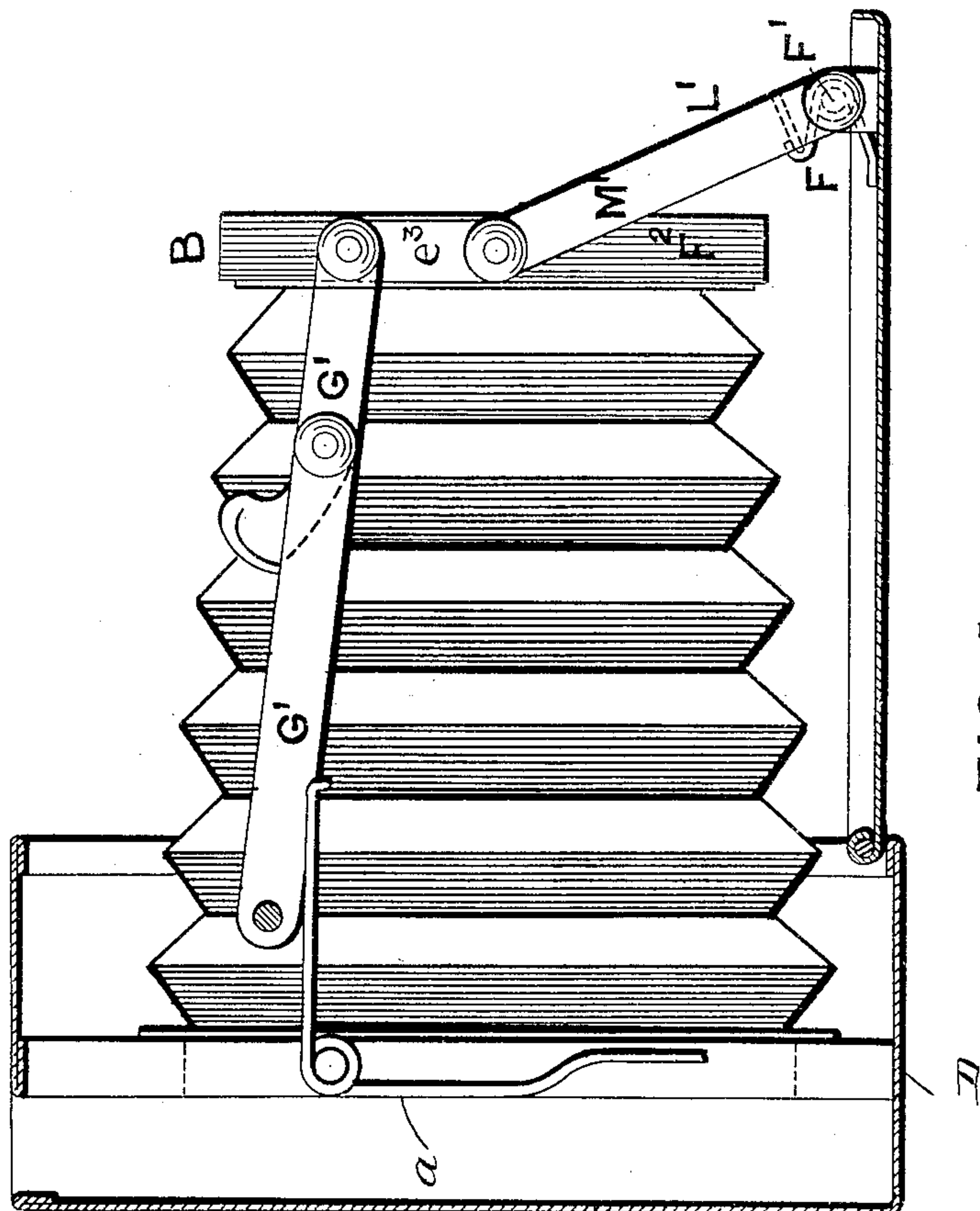


FIG. 5.

WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN E. THORNTON, OF MANCHESTER, ENGLAND.

PHOTOGRAPHIC CAMERA.

SPECIFICATION forming part of Letters Patent No. 702,260, dated June 10, 1902.

Application filed January 8, 1900. Serial No. 718. (No model.)

To all whom it may concern:

Be it known that I, JOHN EDWARD THORNTON, a subject of the Queen of Great Britain, residing at Manchester, in the county of Lancaster, England, (whose postal address is Worsley Mills, Hulme, Manchester, aforesaid,) have invented certain new and useful Improvements in Photographic Cameras, of which the following is a specification.

This invention relates to folding hand-cameras, and is designed to render the front self-erecting.

It consists, essentially, in so constructing the front and stretchers that on the base-board being released the front will be self-erecting.

It will be fully described with reference to the accompanying drawings.

Figure 1 is a side elevation showing the camera extended and the front erected. Fig. 2 is a side elevation showing the camera folded and the front in position therein. Fig. 3 is a plan extended. Fig. 4 is a front elevation extended. Fig. 5 is a side elevation showing a modified arrangement.

The camera comprises a base-board A, hinged or pivoted to a body D, with a front B, hinged or pivoted to the base, and a bellows C, connecting the front B and body D, all of any ordinary or suitable construction.

The front B is pivoted between the two uprights e of a fork E upon the pins or pivots e' e^2 , and the fork E is pivoted to the base-board A near to the front edge thereof. To the fork E are connected one or two spiral springs F, by which the uprights e are raised to an upright position, the strength of the spring being sufficient to lift the fork and draw outward the front B, when the base-board is released from the body D.

The base-board A is pivoted to the body D and is also connected to it by stretchers G at both sides, the stretchers G at the two sides being alike. The stretchers G are formed in two parts, pivoted together at or near the center with a rule-joint g , so as to fold in two when the camera is folded. At one end the stretchers G are pivoted to the camera-body D and at the other or outer end to the base-board A. When the camera is erect or extended, the stretchers G are straight. (See Fig. 1.)

A spring ear or catch H is attached to the lower member of each stretcher and rests

upon the edge of the upper member to prevent a folding movement until they are pressed inward out of contact with the upper member.

A spring K is placed behind the upper members of the stretcher G to move it outward into a straight position.

The uprights e of the front fork E are connected to the lower members of the stretchers G by links L, whereby the fork is moved outward with the stretchers, the spring F acting at the same time to lift the fork into an upright position.

The uprights e of the fork E are guided at each side by a second link M, with a pin m traversing a slot m' in the upright e . The pin m also traverses a slot n in a bracket N, attached to the side of the front B to hold or maintain the front perfectly vertical when erected.

Each of the links L is preferably pivoted to the stretcher G by means of a plate or bracket O, adjustably attached to the stretcher by a screw or pin o , by which the position of the front A can be accurately adjusted for focusing purposes.

Instead of attaching the stretchers to the base-board the stretcher G' may be attached directly to uprights e^3 of a fork F², as in Fig. 5, with links L' and M' to maintain the front B upright when raised by the spring F', as before. The spring K' raises the stretcher G' into position.

What I claim as my invention, and desire to protect by Letters Patent, is—

In a folding camera the combination with the body D, the base-board pivoted thereto, the fork E pivoted to the base-board, the front B pivoted thereto, and the bellows connecting the front and body, of the stretchers G of two parts pivoted together, the springs K under the stretchers, the links L connecting the fork to the stretchers, the second links M for holding the front vertical, and the spring F connected to the fork E to raise the fork and with it the front into a vertical position when the base-board is released, substantially as described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

J. E. THORNTON.

Witnesses:

J. OWDEN O'BRIEN,
JOSEPH BATES.