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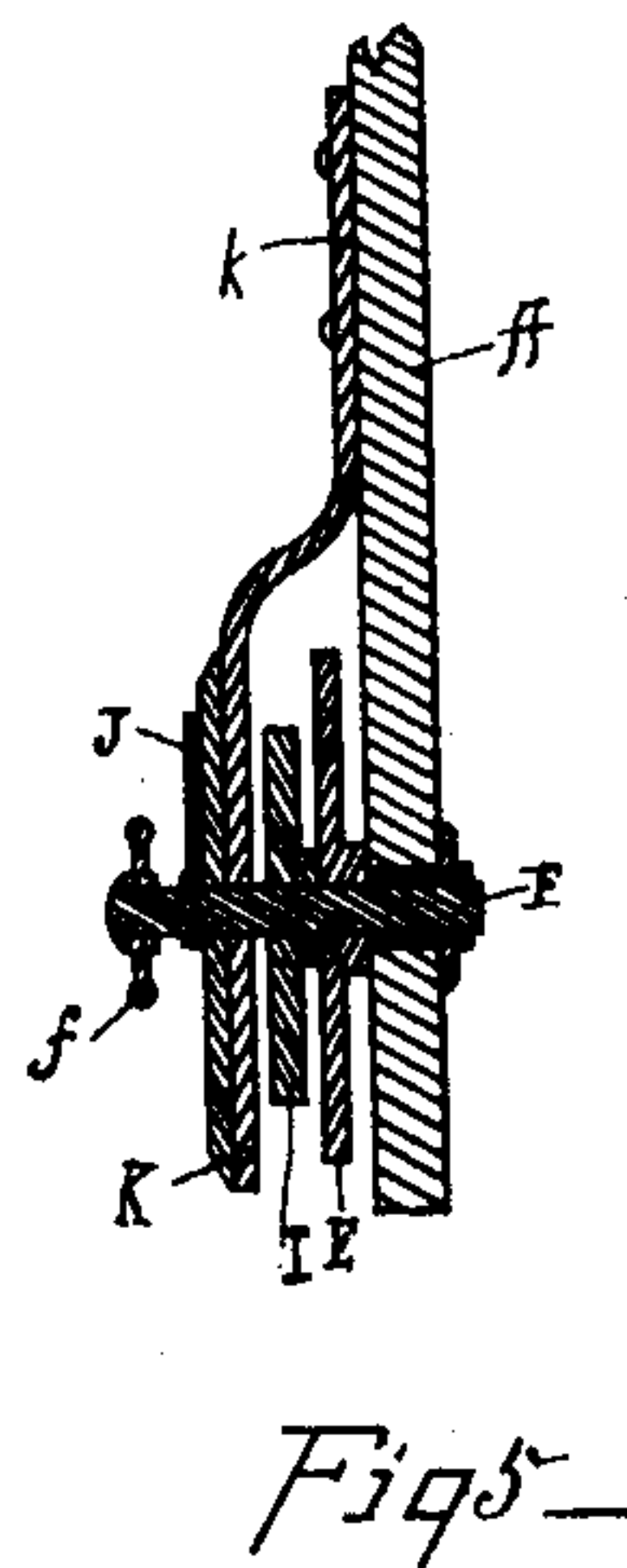
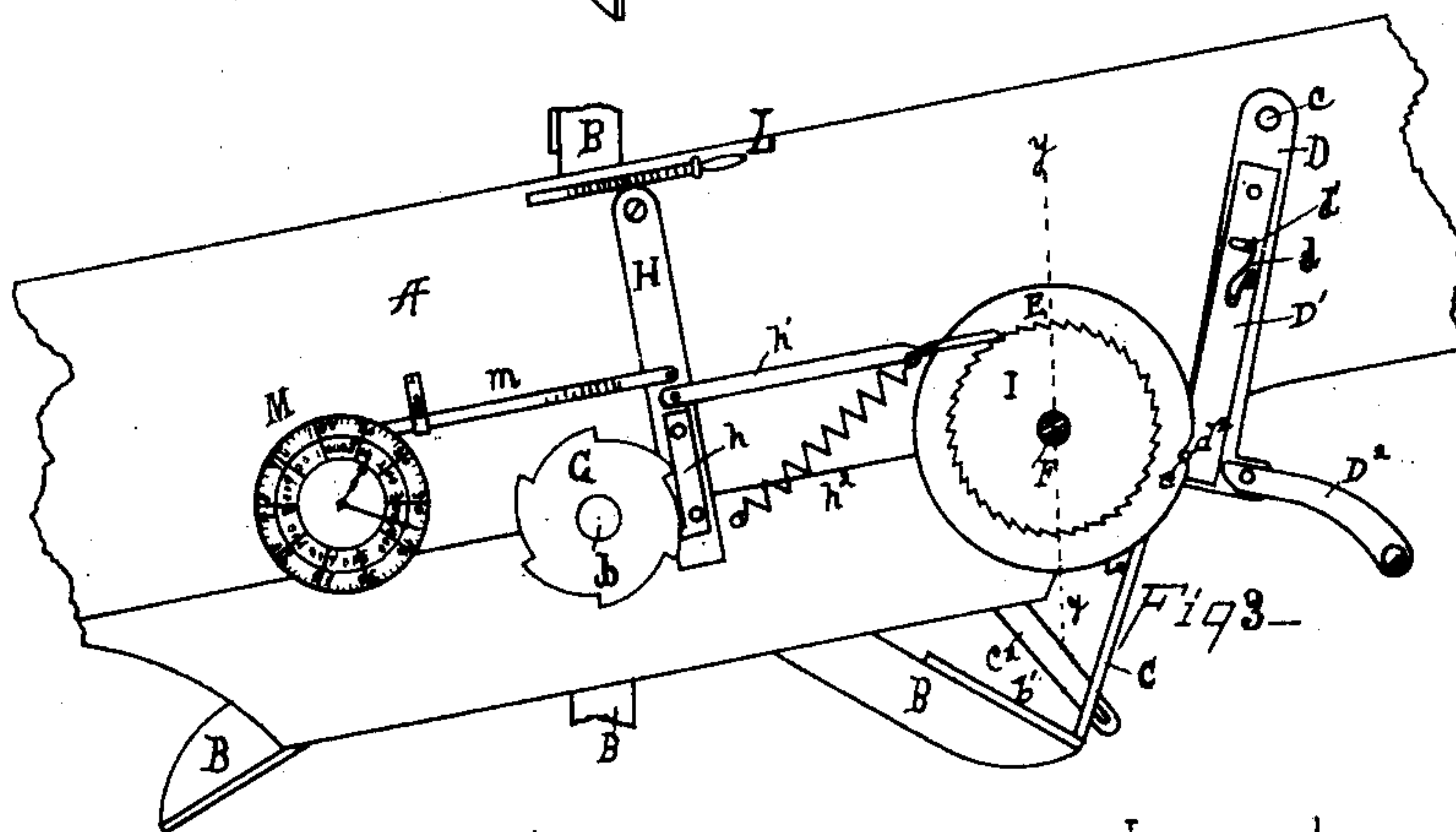
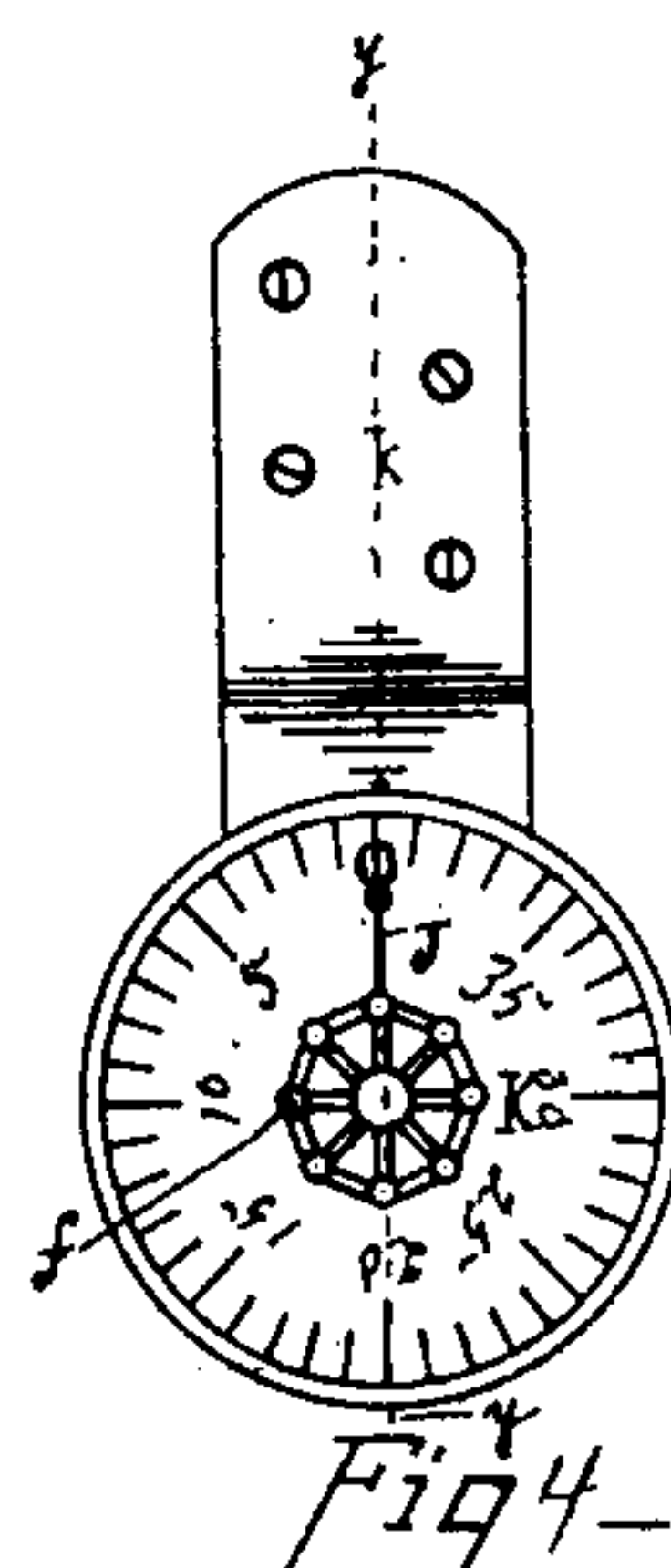
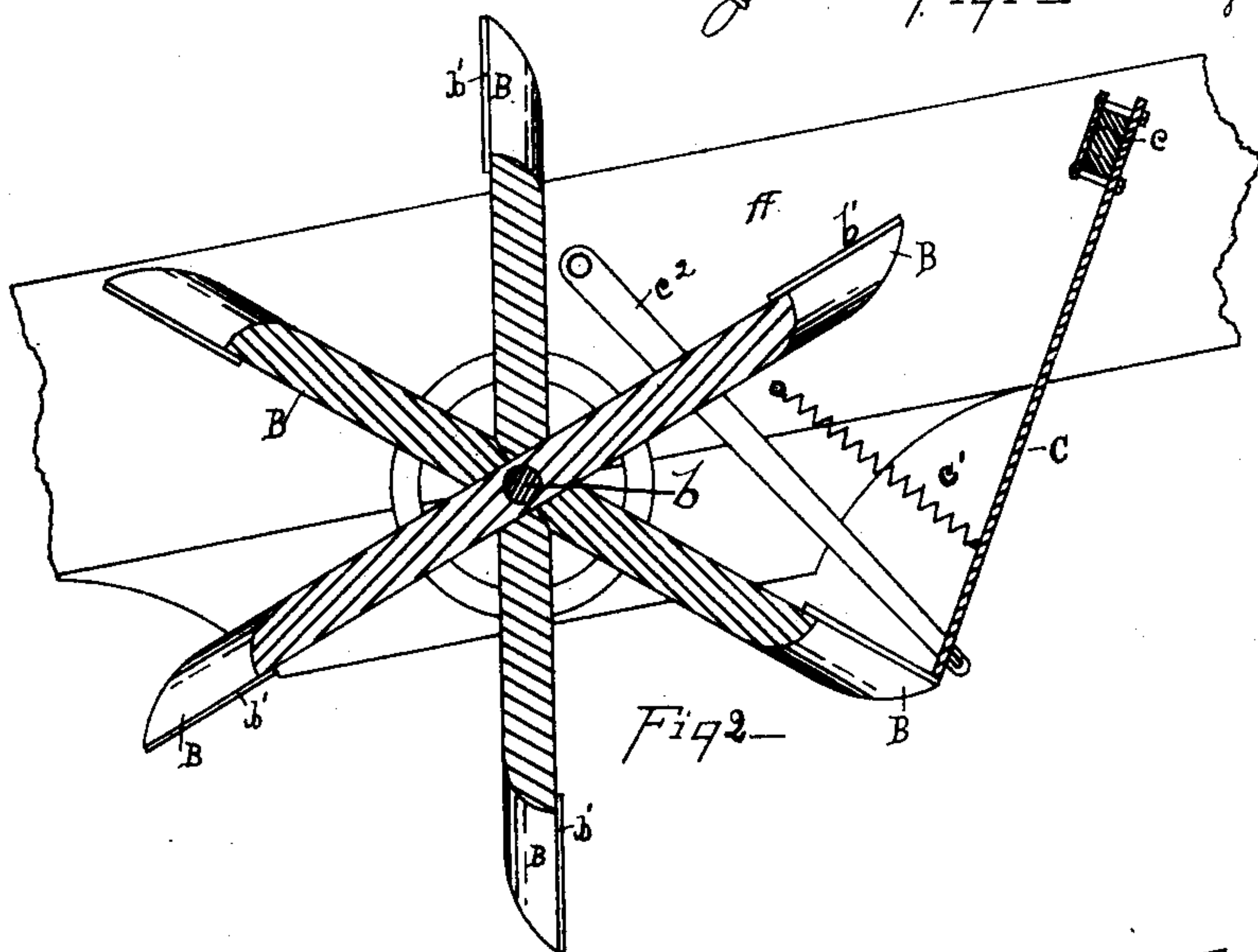
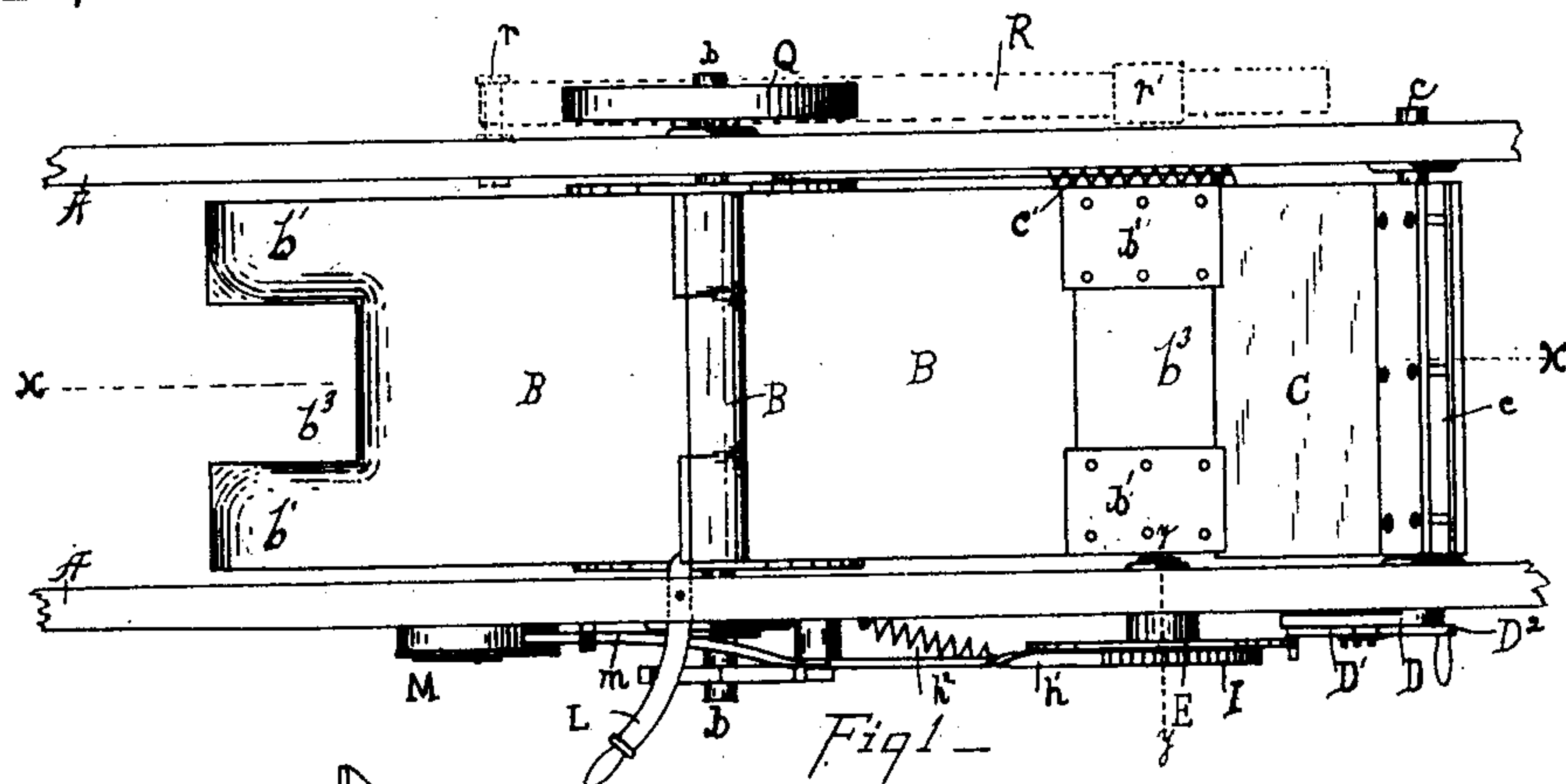
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J. MEYER.

AUTOMATIC FEEDER AND REGISTER FOR BARREL ELEVATORS.

No. 327,007.

Patented Sept. 29, 1885.



Attest—
C. W. Miles.
Chas Barnes

Inventor—
John Meyer
By Geo. J. Murray

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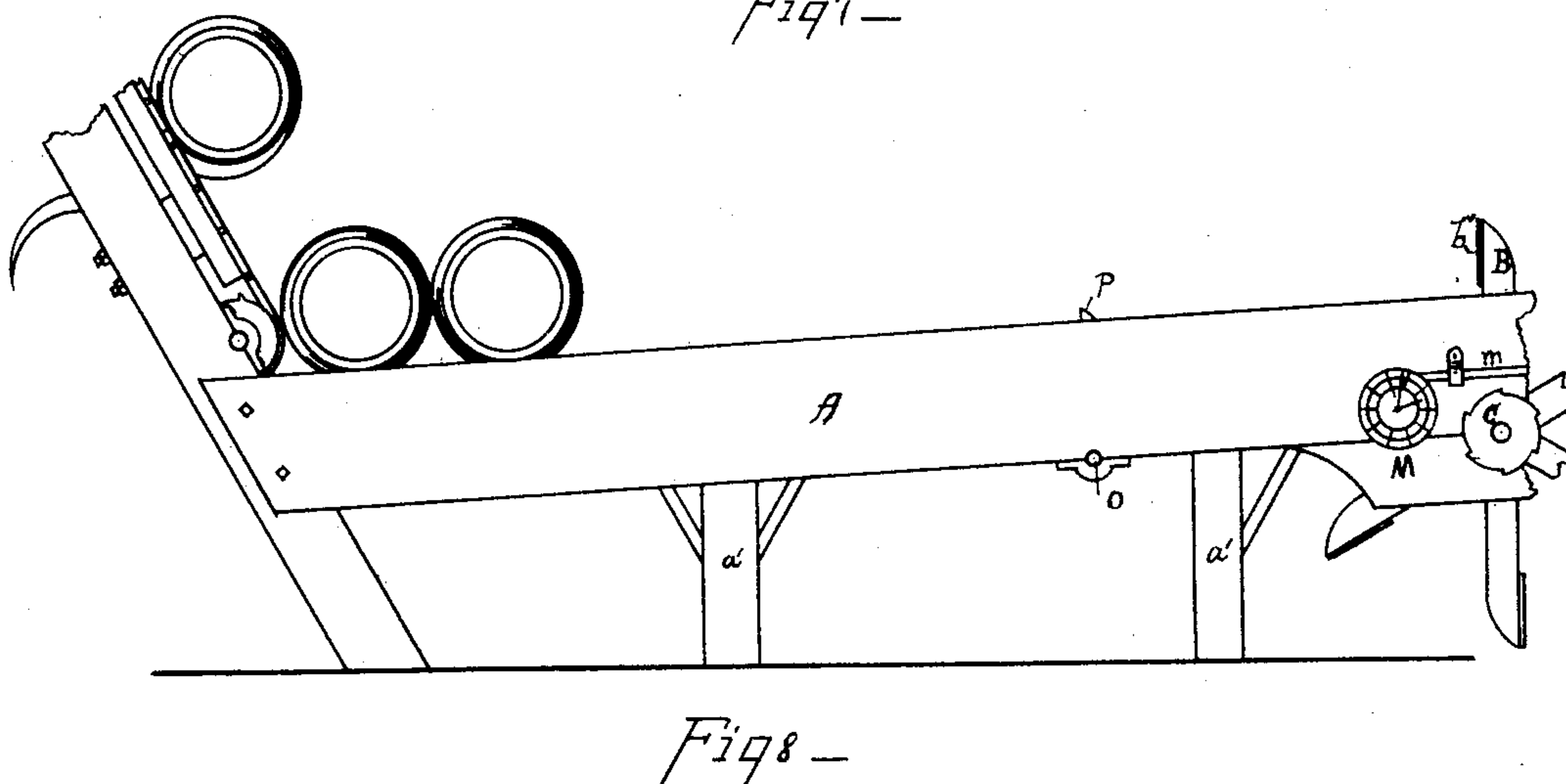
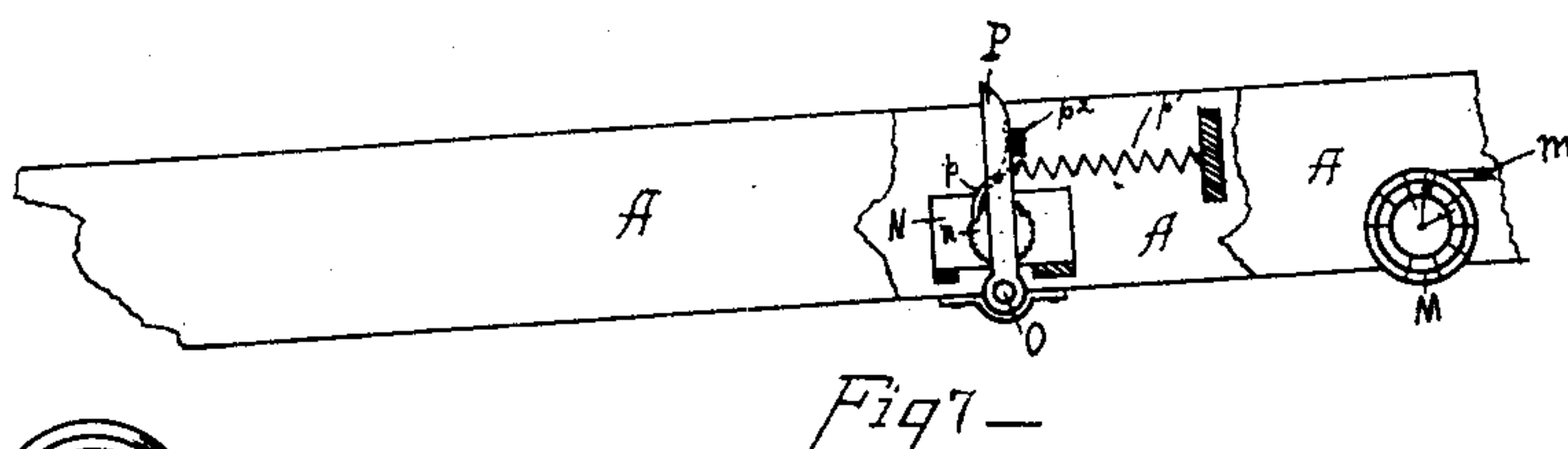
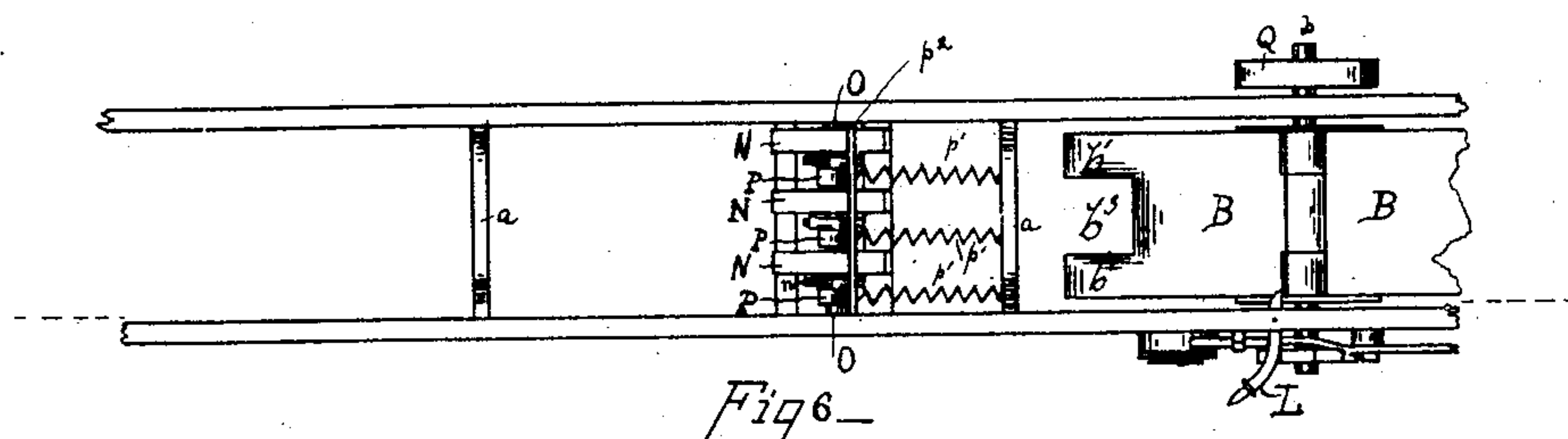
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UNITED STATES PATENT OFFICE.

JOHN MEYER, OF COVINGTON, KENTUCKY.

AUTOMATIC FEEDER AND REGISTER FOR BARREL-ELEVATORS.

SPECIFICATION forming part of Letters Patent No. 327,007, dated September 29, 1885.

Application filed May 1, 1885. (No model.)

To all whom it may concern:

Be it known that I, JOHN MEYER, a citizen of the United States, and a resident of Covington, in the county of Kenton and State of Kentucky, have invented certain new and useful Improvements in Automatic Feeders for Keg-Elevators, of which the following is a specification.

My invention relates to an improvement in the carrier ordinarily used in beer-breweries for delivering kegs to the elevator. Its object is a registering mechanism which can be set to predetermine the number of kegs delivered at any specified time or to any particular party, and also to register the number delivered during any given time to each driver, and also to register the whole amount delivered during any day or other portion of time. These improvements are attached to the keg-carrier now in common use, and provide a certain means of determining the number of kegs delivered to each driver, and the number going out of the brewery without relying upon the assistants to keep account of the same during each delivery.

In the accompanying drawings, forming part of this specification, in which the same reference-letters indicate the same or like parts wherever they occur throughout the various views, Figure 1 is a plan view of that portion of a keg-carrier which has my automatic feed and general register attached to it. The dial and its holder, Fig. 4, are removed to expose the parts below it. Fig. 2 is a central vertical section of the same, taken through line *x* of Fig. 1. Fig. 3 is a side elevation of the same with the dial-plate and its holder, Fig. 4, removed, as shown in Fig. 1. Fig. 4 is a front elevation of the dial by which the number of kegs to be delivered at any particular time is predetermined. Fig. 5 is a vertical transverse section taken through line *y y* of Figs. 1, 3, and 4. The dial, Fig. 4, is assumed to be attached in one or other of the views, and the view here shown being a sectional view of the device by which the number of kegs delivered at any one time is predetermined. Fig. 6 is a plan view, on a diminished scale, of that portion of the carrier containing the feeding-wheel and the individual registers at the back of it. Fig. 7 is a side view with a

portion of the side rail removed to expose the individual register. Fig. 8 is a side elevation of the end of the carrier, which is connected to the keg-elevator.

The keg-carrier, consisting of the side rails, A, braced together by cross-bars *a* and supported upon feet *a'*, is of ordinary construction, as is also the keg-elevator, a portion of which is shown in Fig. 8.

Located at a suitable point in the carrier-frame is a wheel B, mounted upon a shaft *b*, which has its bearings in the sides A. The arms of the wheel extend up, when rotated, above the frame A, and have their outer ends bifurcated, as seen at *b³*, Fig. 1, and chamfered off on one side to receive the larger portion of the keg as it is rolled against it, permitting the bung to pass and preventing the keg being thrown from the carrier. The opposite sides of the arms are provided with metal plates, *b'*, to strengthen the wood and receive the impact of the end of the swinging wing C, which, when in the position shown, stops the wheel and prevents any kegs passing it. The wing C swings upon a transverse shaft, *c*, which has its bearings also in the frame or side pieces, A.

Secured upon the same shaft, on the outside of the frame A, is a swinging arm, D, upon which is pivoted another arm, D', which carries a pin, *d²*, at its lower end to engage a notch, *e*, in the disk-wheel E, which is secured upon a shaft, F, which has its bearings in the side A. A spring, *d*, secured upon the arm D', has its free end in contact with the pin *d'*, which is secured in the arm D and passes through a transverse slot in the swinging arm D'. The object of this is to release the pin at the lower end of the arm D' from the notch in the disk-wheel E without releasing the wing C from the arm B, when the lever D² is thrown up. When the pin is released from the notch, and the disk turned so as to bring the pin upon the periphery of the disk, the lever D², being thrown down, as shown in Fig. 3, will withdraw the wing C out of the path of the wheel B, and permit the wheel to be revolved so long as the pin in the lower end of arm D' remains out of its notch in the disk E.

Upon the shaft *b*, on the outside of frame A, is secured a cam-wheel, G, which, when the shaft *b* revolves, vibrates a swinging arm,

H, by means of an angle-piece, h , which is secured upon the arm H, and has its lower bent end resting upon the periphery of the wheel G. From this arm H extends a pawl, h' , which is held in engagement with a ratchet-wheel, I, by a spring, h^2 . The ratchet-wheel I is secured on the shaft F in front of the disk E. It will be seen that as the wheel G revolves the shaft F will be intermittingly rotated by the pawl h' engaging the ratchet-wheel I, while the angle piece h is riding upon one of the teeth of the cam-wheel G. When it passes the end of and drops back of the tooth, the pawl h' will be drawn back and take a new bite in one of the teeth of the ratchet I. It will be noticed that there are six teeth or cam projections upon the wheel G, corresponding to the six arms of the feed-wheel B, so that each time a keg passes and revolves the wheel B the ratchet-wheel I will be advanced one tooth.

Upon the same shaft F upon which is secured the ratchet-wheel I and disk E is also secured a hand or pointer, J. This hand is secured to the shaft in front of a dial, K, which is suitably numbered, and is suspended in front of the ratchet-wheel I and disk E upon a metal hanger, k , which is rigidly secured to one of the sides A, and curved out to overlap the ratchet I and disk E, and perforated to receive the shaft F. The shaft F is fitted at its outer end with a hand-wheel, f , by which it may be rotated in one direction to determine the number of kegs that are to be delivered to the driver or person ordering them. The number to be delivered is determined in the following manner, the parts being in the position represented in the several figures of Sheet 1 of the drawings, with the lever D^2 thrown down and the pin of arm D' in the notch of disk E and hand J opposite 0 on the dial: Now, suppose the party calling for the kegs wants twenty, the attendant in charge of the device throws the lever D^2 up to a vertical position, disengages the pawl h' from the ratchet I, then by taking hold of the hand-wheel f rotates the shaft to the left until the hand J comes opposite the mark 20 on the dial. The pawl h' is again put into engagement with the teeth of ratchet I, and lever D^2 , being thrown down to the position shown in the drawings, throws wing C out of the path of the arms of wheel B, which then is free to revolve. Each keg passing down to the elevator strikes one arm of the wheel B, carrying it around, revolving the shaft b , actuating through the cam-wheel G the swinging lever H, pawl h' , and advancing ratchet I, disk E, and hand J one notch, which is equivalent to one number on the dial-plate. Each keg passing therefore carries the disk E around the distance of one notch or number on the dial, and when the disk has been turned twenty notches the pin in the lower end of the arm drops into the notch in the disk E, and the wing C is drawn in by its spring c' and stops the wheel. This prevents any more kegs passing.

It is of course understood that the carrier

in advance of the wheel B is always filled with kegs. It will therefore require some force to release the wing C from engagement with the arm of the wheel B, if no provision were made for taking off the strain. I have therefore provided a lever, L, which has its fulcrum in the frame A, and its detent passing on the inside in a position to engage one of the arms or wings of the wheel B, so that by forcing the lever around in the direction of the elevator its detent will turn the wheel B slightly in a reverse direction, that the wing C may be released and thrown back by the lever D^2 without unnecessarily straining the parts.

I have also provided a link, c^2 , one end of which is pivoted on the inside of the side piece, A, and the opposite end is slotted to receive a pin projecting from the edge of wing C. The purpose of this is to limit the motion of the wing C, so that it may be drawn in by its spring c' , to a position to stop the wheel B, and thrown out by its lever D^2 when the pin in arm D' is riding upon the periphery of disk E, to permit the wheel to be revolved by the kegs passing over the carrier.

I have now described my automatic feeding attachments for the keg-carrier, which enables the attendant to set the machine to feed any number of kegs desired, upon the order of the driver or other party demanding them. If this arrangement alone is to be used in connection with my automatic feed, then it would be necessary for the attendant to keep a separate register for each party calling for beer, and also a general register to determine the amount delivered in any given time; but in addition to my automatic feeding apparatus I have arranged a general register and an individual register for each driver or customer, to be attached to my carrier, which I will now proceed to describe, and first as to the general register. This may be of any approved construction, and is represented by M. It is attached to the outside of the frame A, in rear of the feed-shaft, and is actuated by a pawl, m , pivoted on a pin projecting from bar H. Its detent engages a ratchet-wheel, which revolves the hand-shaft of the register M. The mechanism of the register M is arranged similar to a clock mechanism, having its dial-plate suitably numbered and two hands in front, like a clock. The longer hand is moved around the dial the distance of one number at each vibration of the lever H, and the smaller hand is moved one number at each complete revolution of the longer hand of the dial, so that the long hand registers units and the smaller one hundreds, so that a glance at the dial will determine the number of kegs passing over the carrier during any fixed time.

Mounted in the carrier back of the feed-wheel B, Figs. 6, 7, and 8, are the individual registers N N N, and vertically below them is mounted a shaft, O, upon which are secured three arms, P, each being provided with a pawl, p , which engage ratchets n , which ratch-

ets are secured upon shafts passing through the side of each register. In the normal position the arms P are held vertically in the path of the passing kegs by springs p' , which
 5 hold the arms against a stop or cross-bar, p^2 . One of these registers is for each driver, and there will of course be as many registers as there are drivers employed. The pawls p are normally thrown up and out of engagement
 10 with ratchet-wheels n , as shown in dotted line, Fig. 7, so that the registers are not affected by the vibration of the arms P. Now, when any driver calls for a number of kegs the pawl of his register is thrown into engagement with
 15 the ratchet-wheel n , and the number of kegs passing over the carrier to the elevator is registered. So soon as the number of kegs has been received the pawl is again thrown out of engagement with the ratchet. It is intended
 20 to lock the pawl in the upper position and let each driver carry the key to his register, so that no advantage can be taken of him in his absence.

The end of the shaft b on the opposite side
 25 of the carrier from the registering devices is provided with a friction-pulley, Q. A brake-lever, R, pivoted on the bar, overhangs the pulley, and has a brake-shoe bearing upon the pulley. The lever R has sliding upon it a
 30 weight, r' , which can be moved back and forth upon the lever. The purpose of this arrangement is to prevent the wings B revolving until forced by a keg passing down the carrier.

It is evident that the individual registers
 35 may be operated in different methods by the passing keg. For instance, instead of the rock-shaft O and its arms P, the actuating device might be a platform for each register, mounted upon vertical sliding plungers carrying a pawl
 40 or other intermediate feeding device. No special register is shown here, as there are many well-known registers that could be applied without invention. The particular register that I intend to use will be the subject of a
 45 separate application.

It is intended to have branch carriers connecting with the main carrier, which leads to the elevator, each branch being provided with a register such as shown in order that differ-
 50 ent-sized kegs may be passed over the different branches—that is, whole barrels, half, quarter, and eighth barrels will each have a separate branch leading to the main carrier.

While my invention is especially adapted
 55 for use in breweries, it is also applicable to other manufacturing establishments in which the goods manufactured are kept in kegs or barrels, and my carrier may be used to equal advantage whether the barrels are delivered
 60 to the elevator or directly to the wagons.

What I claim is—

1. The carrier A and arms B, mounted in the carrier-frame in the path of the kegs passing over it, in combination with the piv-
 65 oted arm H, pawl m , the cam G, shaft b , and

register actuated by the vibrating arm H and pawl m , substantially as described.

2. In a keg-carrier, the combination of the revolving arm B, the shaft b , upon which the arms are mounted in the path of the passing
 70 kegs, the cam G, secured upon shaft b , the swinging lever H h , the pawl h' , pivoted upon arm H, the ratchet I, and disk E, provided with a notch, e , with the stop C, and its arm D D', and engaging-pin, whereby the said
 75 stop is held out of the path of the revolving arms B by the said disk E until its notch e comes opposite the pin d^2 , when it is brought into the path of the said arms for the pur-
 80 pose of stopping them and the further deliv- ery of kegs when the predetermined number has passed the said arms.

3. A registering mechanism for predeter- mining the number of kegs passing over an elevator-feeder, consisting of the shaft F, disk
 85 E, provided with notch e , ratchet I, hand J, secured upon said shaft, and stationary dial K, in combination with an actuating-pawl operated by the mechanism set in motion by the passing kegs, and a stop, as C, and its
 90 connections, to arrest the said mechanism and prevent the further passage of kegs when the hand J and notch in disk E reach the position shown.

4. The combination, substantially as de-
 95 scribed, of the keg-carrier and the register N with the levers P, which operate the register mechanism, said levers being arranged in the path of the kegs passing over the car-
 100 rier to be pressed by them, springs p' , to re- turn the levers in the path of the next keg, and pawls p , the notched disk E, and the reg- ister-shafts.

5. In an automatic feeder for barrel-eleva-
 105 tors, the combination, substantially as here- inbefore set forth, of the shaft b , the auto- matic feed-arms B, secured upon said shaft, with register M, pawl m , pivoted arm H h , and cam G, secured upon said shaft b , where-
 110 by the register is operated and the number of kegs passing over the carrier registered.

6. In a barrel-carrier such as described, the combination of rotating arms arranged to be
 115 revolved by the kegs passing over the carrier, a registering device to predetermine the number of kegs fed over the carrier, and the stop C, to arrest the arms when the predeter- mined number of kegs have passed, a general register, M, to register the entire number de-
 120 livered, and individual registers N, having their actuating-levers in the path of the pass- ing kegs to determine the number of kegs de- livered to each driver, the parts being ar- ranged and operating substantially as de- scribed.

JOHN MEYER.

Witnesses:

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GEO. J. MURRAY.