

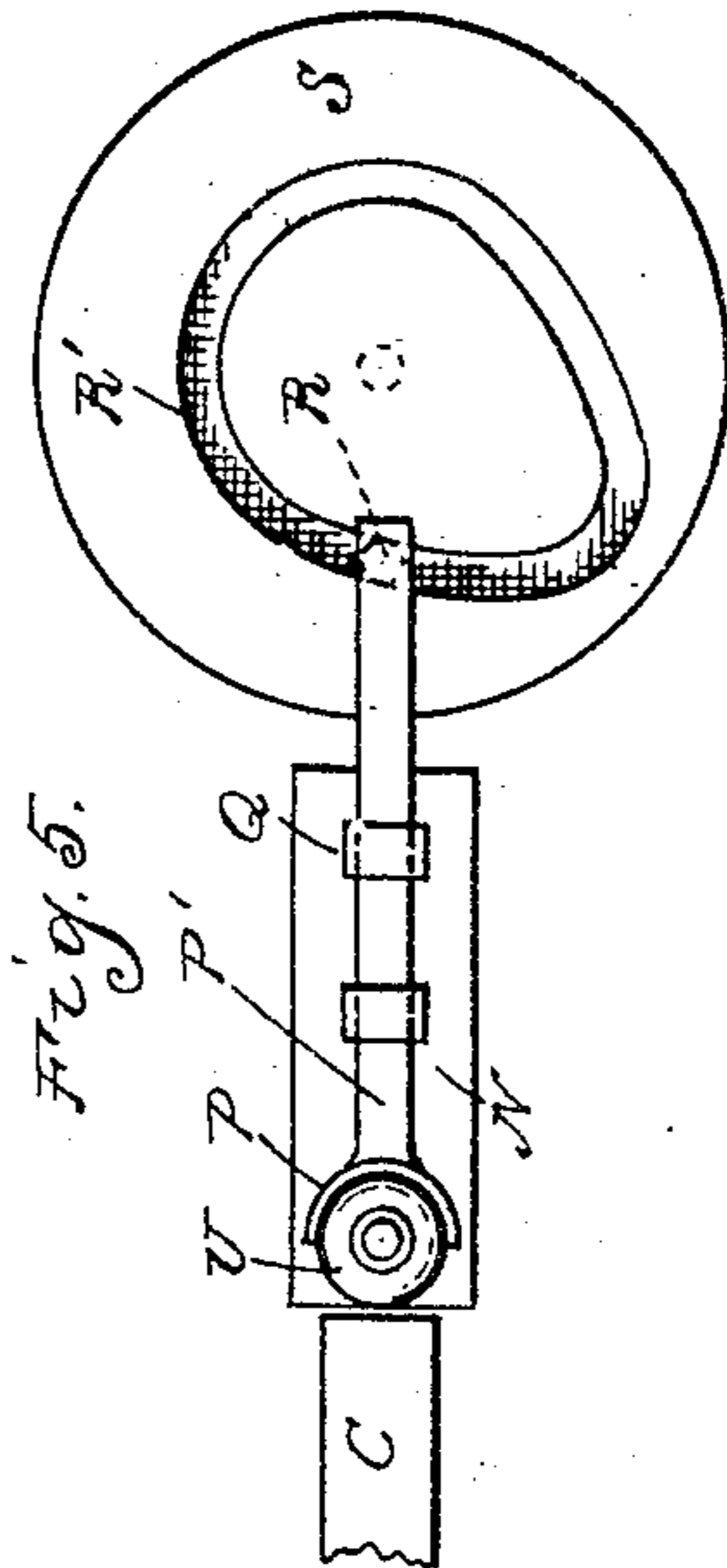
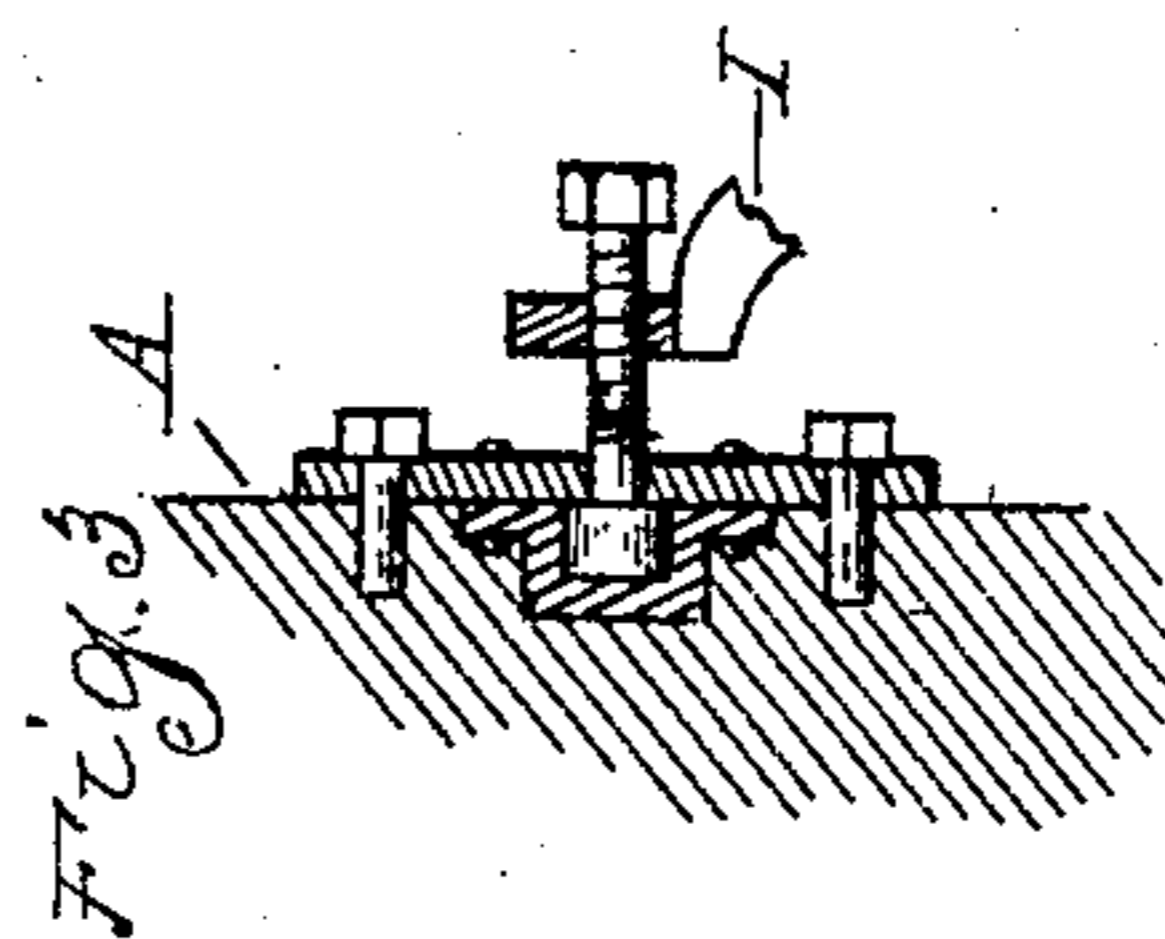
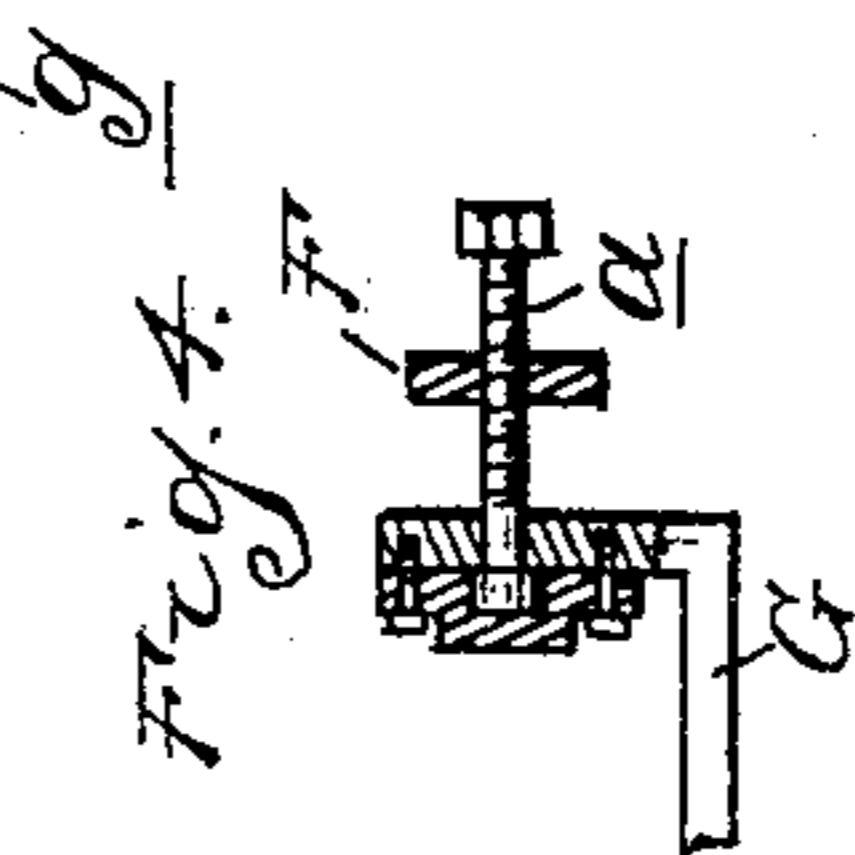
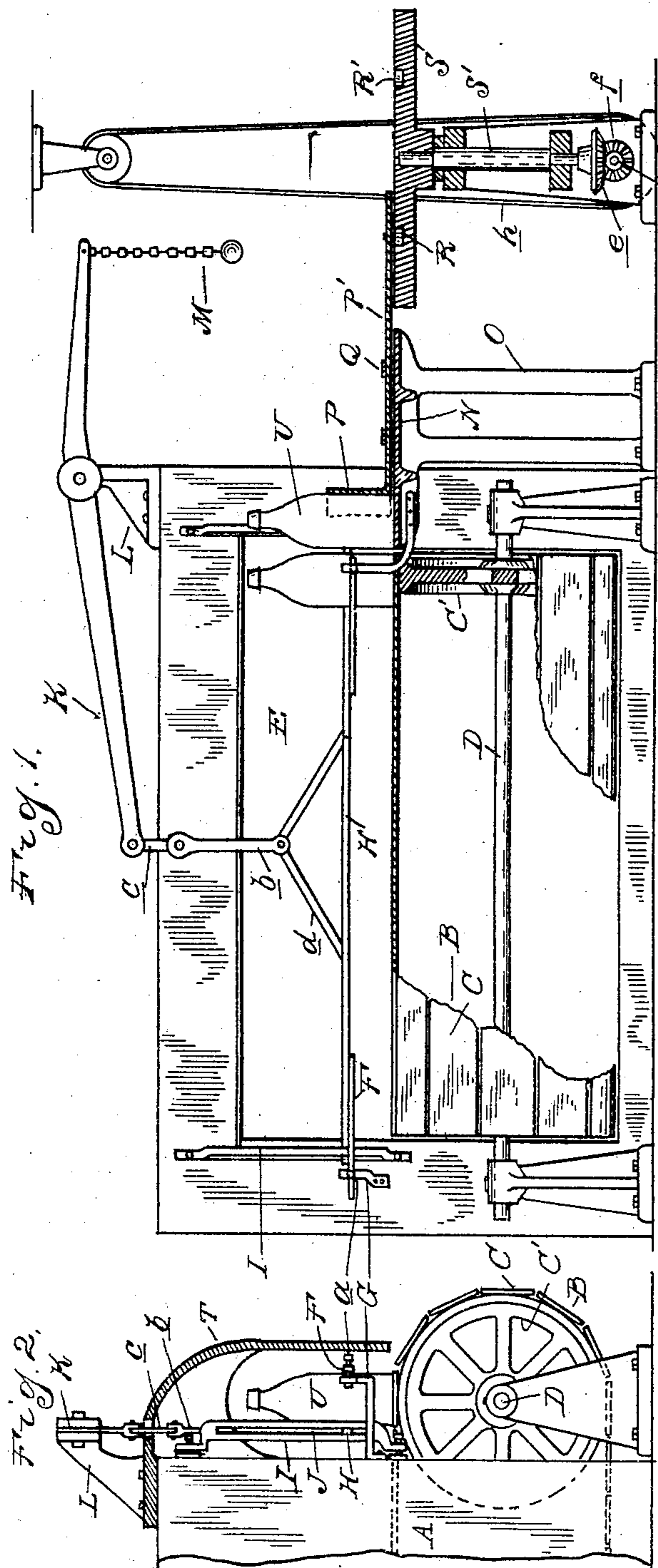
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PATENTED NOV. 8, 1904.

M. J. OWENS.
MACHINE FOR FILLING LEERS.

APPLICATION FILED DEC. 22, 1903.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

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MACHINE FOR FILLING LEERS.

SPECIFICATION forming part of Letters Patent No. 774,691, dated November 8, 1904.

Application filed December 22, 1903. Serial No. 186,258. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL J. OWENS, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have
 5 invented certain new and useful Improvements in Machines for Filling Leers, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to new and useful improvements in a machine for feeding glassware into leers, and consisting particularly in the construction of a device adapted to push or propel the glassware in rows upon an endless carrier passing through the leer and in the
 15 construction of a machine which is efficient, very simple in construction, and certain in its operation, all as more fully hereinafter described, and particularly pointed out in the claims.

In the drawings, Figure 1 is a front elevation of a leer with the front hood removed, showing part of the mechanism in section to illustrate the construction of such parts. Fig.
 20 2 is a side elevation of the leer, showing the hood in section. Figs. 3 and 4 are detail sections showing the adjustable connections for the guide-rails. Fig. 5 is a plan view of the actuating-cam and pusher.

The leer which I have shown in this application is an ordinary form of leer now known and used, and consists of the inclosing walls A, within which is an endless carrier B, made up of a series of slats or plates C, connected together in any suitable manner and running
 35 over end wheels C' on the shaft D in the usual manner. The carrier preferably projects out beyond one end of the leer a short distance, as shown in Fig. 2. Above the endless carrier is the furnace-chamber E, into which the
 40 gas-flames are projected through a portion of the leer for tempering the glass, as is customary in such constructions. Attempts have been made heretofore to provide means for feeding the glassware into this endless carrier
 45 through openings in the side of the leer, and my invention is a simple form of such side feed and is of the following construction.

F is a stationary guide-rail secured on the

brackets G, which are in turn secured, preferably, to the end wall of the leer. The guide-rail F may be adjustable horizontally in any desired manner. The construction which I prefer is illustrated in Fig. 4, in which adjusting-screws *a* are journaled in the end of the brackets G, so as to freely turn therein, but
 55 to prevent endwise movement, and the guide-rail F has screw-threaded apertures at each end, with which the adjusting-screws engage, and it is evident that by turning the screws the guide-rail F will be moved horizontally
 60 thereon.

H is a complementary guide-rail to the guide-rail F and is supported in the guide-brackets I, secured at each side of the end of the leer, as shown in Fig. 1. These brackets
 65 are provided with vertical slots J, in which the guide-rail H is adapted to be moved.

K is a lever which I have shown as journaled on a bracket L on top of the leer and connected by the links *b* and *c* with the inclined links or braces *d*, which in turn are
 70 connected to the guide-rail H. The lever K, I may provide with a depending chain, rope, or handle M, by which the operator at the side of the machine may raise and lower the
 75 guide-rail H.

N is a table arranged on the plane of the horizontal portion of the endless carrier through the leer, having its inner edge in close proximity to the edge of the leer. This table
 80 I have shown supported upon standards O.

P is a head or pusher secured to the inner end of the push-bar P', working in guides Q on the upper face of the table N. This push-bar is provided with a roller-wrist R, engaging a cam-groove R' in the cam-wheel S on the shaft S', which is driven from any suitable source of power. I have shown it provided at its lower end with the beveled gear-wheel *e*, meshing with the beveled pinion *f* on
 85 a horizontal shaft *g*, which shaft is driven from the belt *h*.

T is a hood to close the open end of the leer and to prevent too great an indraft of air. This hood has an opening opposite the pusher
 95 P, as illustrated in Fig. 2.

It will be understood that the pusher P is opposite the space or opening between the two guide-rails F and H and also passes through the opening in the end of the hood.

5 The parts being thus constructed and a continuous motion being given to the cam-wheel S, it is obvious that the pusher P will be reciprocated horizontally. In case a piece of glassware, such as a bottle U, be placed on
10 the table N in front of the pusher P, in the inward motion of the pusher the bottle will be moved on the end of the plate of the carrier which is opposite the pusher, as shown in Fig. 2, and such bottle or piece of glass-
15 ware will be pushed between the two guide-rails H and F and be guided and held thereby. As soon as the first bottle is pushed into the carrier the pusher withdraws, and a second bottle or piece of glassware may be placed
20 upon the table in the path of the pusher, and it, too, will be pushed in, at the same time pushing the bottle or articles of glassware in front of it across the carrier. This operation is continued until the glassware is fed in a row clear
25 across the width of the carrier. As soon as a row of articles of glassware have thus been fed into the carrier the operator pulling on the handle M will lift the guide-rail H from in front of that row of articles and then through
30 a suitable clutch mechanism, which is not shown, but which is of ordinary construction in use in leers, will start the endless belt and cause it to move a sufficient distance to carry that row of bottles out of the path of the
35 pusher and beyond the guide-rail H within the leer. The operator then lowers the guide-rail H, and a second row is fed in in the manner already described, and this operation may be repeated as long as desired.

40 It is obvious that in order to make the device capable of use in connection with glassware of different widths the guide-rails H and F must be adjustable to and from each other to accommodate such widths, and the adjust-
45 ments described are for that purpose.

What I claim as my invention is—

1. In a machine for feeding glassware into leers the combination of a carrier for moving the ware through the leers of transverse
50 guides above the carrier, means for feeding the ware between the guide-rails upon the carrier, and means for moving the inner guide-rail out of the path of the articles.

2. In a machine for feeding glassware into
55 leers, the combination with a carrier for moving the ware through the leer of a continuously-operating reciprocating pusher moving a uniform distance at each operation and a table adapted to receive the article in front
60 of the pusher arranged on the plane of the carrier the pusher being adapted to move the

article from the table upon the edge of the carrier.

3. In a machine for feeding glassware into leers, the combination with the carrier adapted to receive and carry the articles through
65 the leer of a table at one side of the leer on the plane of the carrier, a reciprocating pusher moving a uniform distance at each operation and adapted to move the article from
70 the table onto the edge of the carrier, guide-rails extending over the carrier in the path of the pusher, and means for moving the inner guide-rail out of the plane of movement of the glassware when the carrier is operated. 75

4. A guide for a machine for feeding glassware to leers, consisting of the stationary guide-rail F extending transversely of the carrier in the leer; a vertically-movable guide-rail H and means for raising and lowering the
80 movable guide-rail.

5. The combination with the leer and its carrier, of a stationary guide F means for adjusting that guide horizontally the vertically-movable guide-rail H and means for adjusting
85 that rail horizontally in relation to the guide-rail F.

6. The combination with a leer having an open end, an endless carrier traveling there-
90 through and extending slightly outside thereof, of the hood T extending over the end of the opening in the leer, and inclosing the horizontal portion of such extension of the carrier, said hood having an opening at one end, and a pusher operating through said open-
95 ing adapted to move articles onto the carrier.

7. The combination of a leer having a carrier moving therethrough, the leer having an opening opposite the horizontal portion of the carrier, and guides extending across the
100 leer opposite said opening, and means for moving the forward guide out of the path of the articles when the leer-carrier is moved forward.

8. The combination of a leer, an endless
105 carrier therein, and guides extending transversely across the leer, between which the articles are adapted to be moved upon the carrier from one side thereof.

9. The combination with a leer, a carrier
110 therein, a pusher moving like distances at each operation, and guides extending transversely of the carrier for holding the articles being pushed, whereby after one article is on the carrier it will be moved upon the carrier by
115 the subsequent articles fed in by the pusher.

In testimony whereof I affix my signature in presence of two witnesses.

MICHAEL J. OWENS.

Witnesses:

WM. S. WALBRIDGE,
E. H. CLOSE.