

C. R. BURLINGAME.

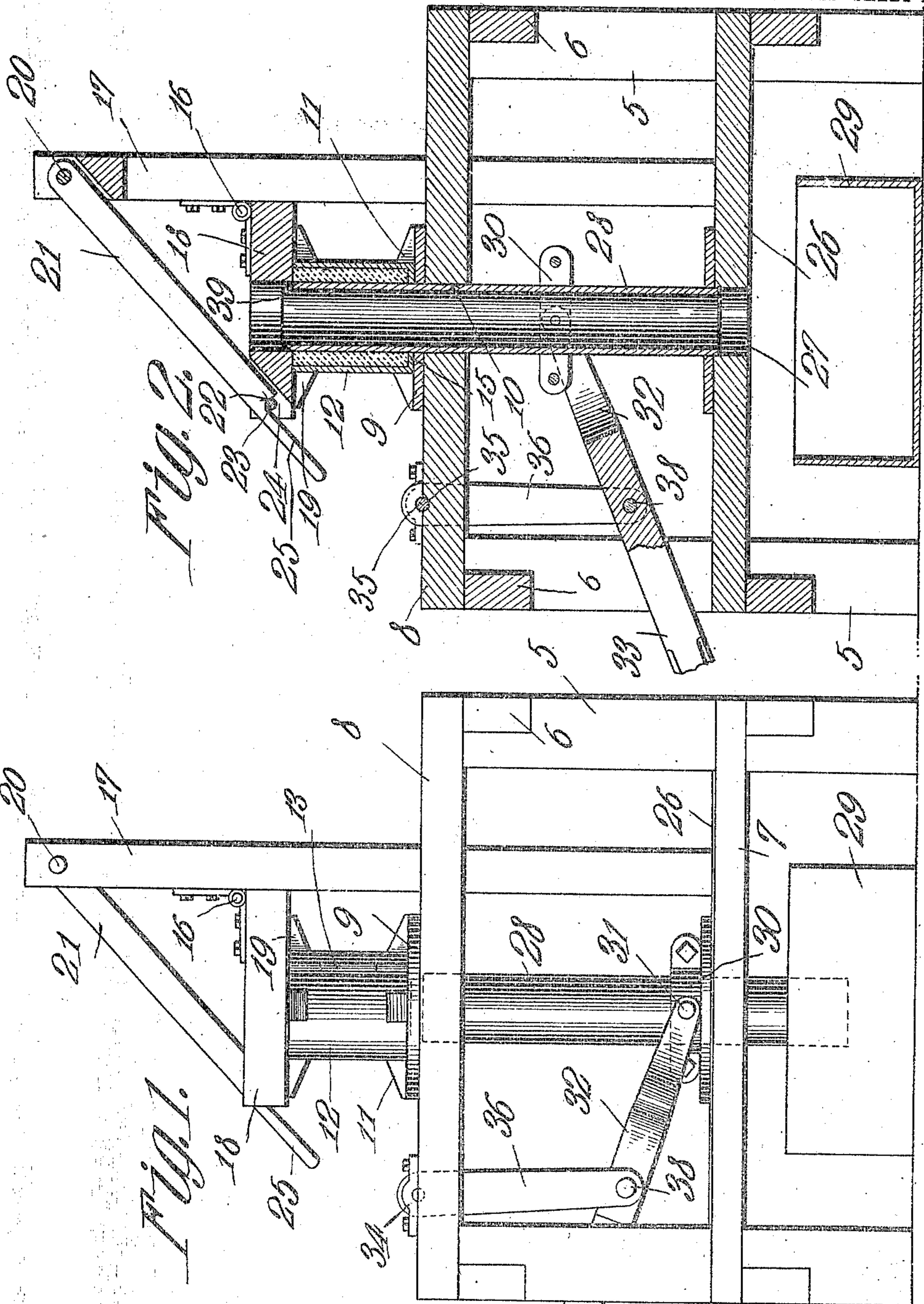
PIPE MACHINE.

APPLICATION FILED OCT. 10, 1908.

Patented Feb. 1, 1910.

948,104.

2 SHEETS—SHEET 1.



Witnesses

E. P. Stewart
L. H. Mearns

Inventor

Clifford R. Burlingame

By

C. A. Snow & Co.

Attorneys

948,104.

C. R. BURLINGAME,
PIPE MACHINE,
APPLICATION FILED OCT. 10, 1908.

Patented Feb. 1, 1910.
2 SHEETS—SHEET 2.

Fig. 3.

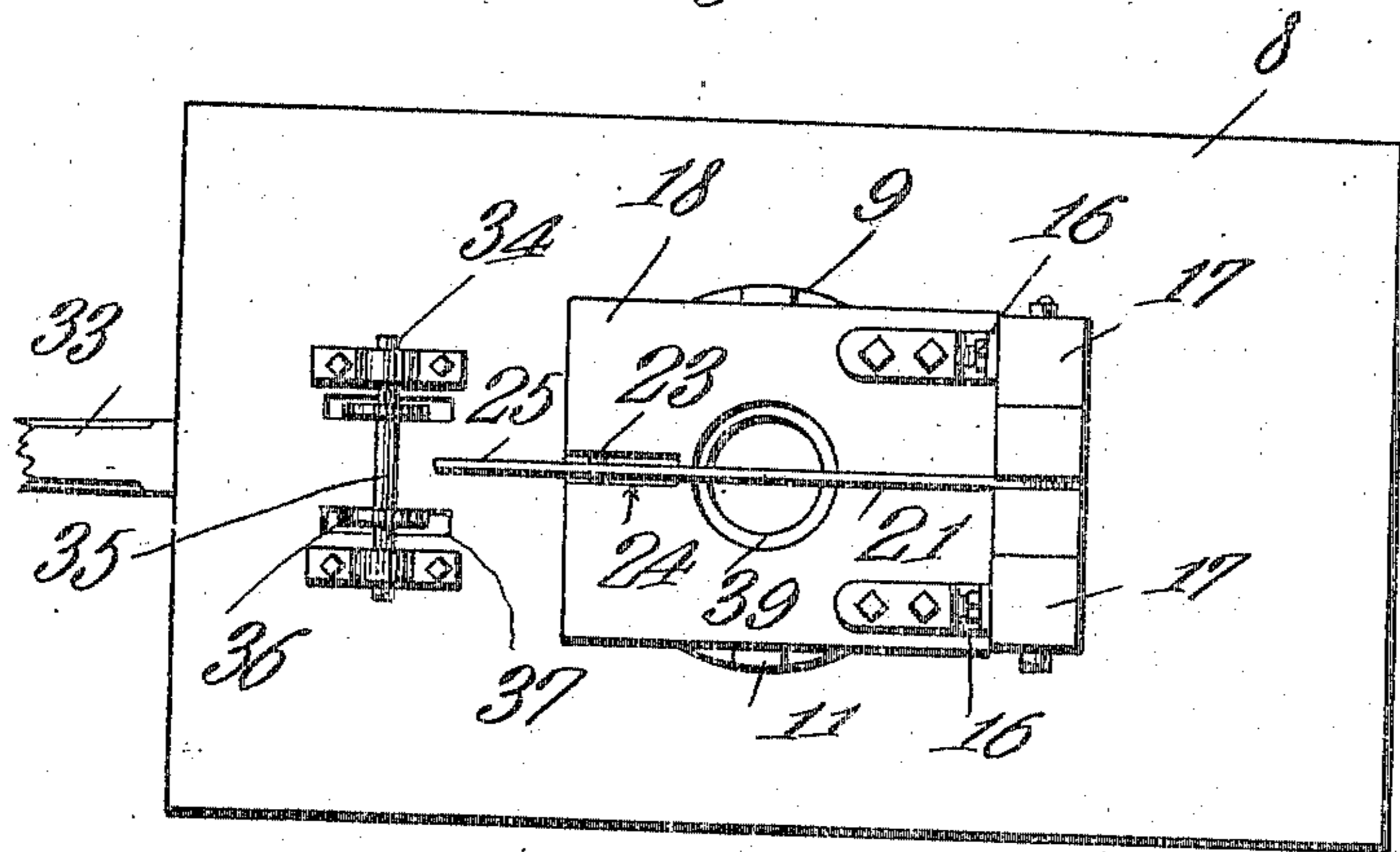


Fig. 5.

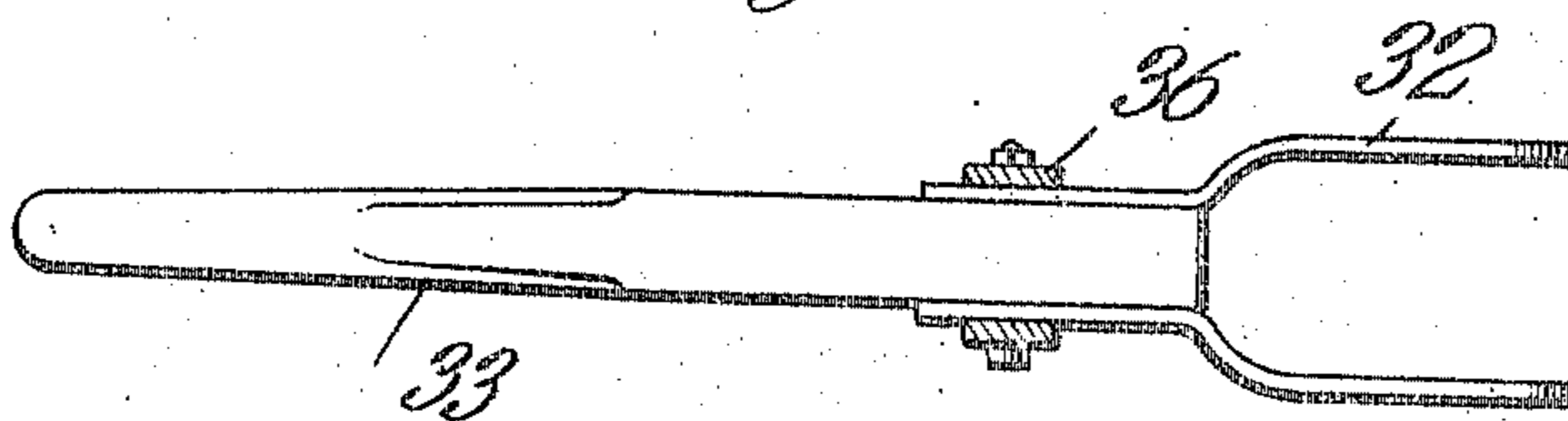
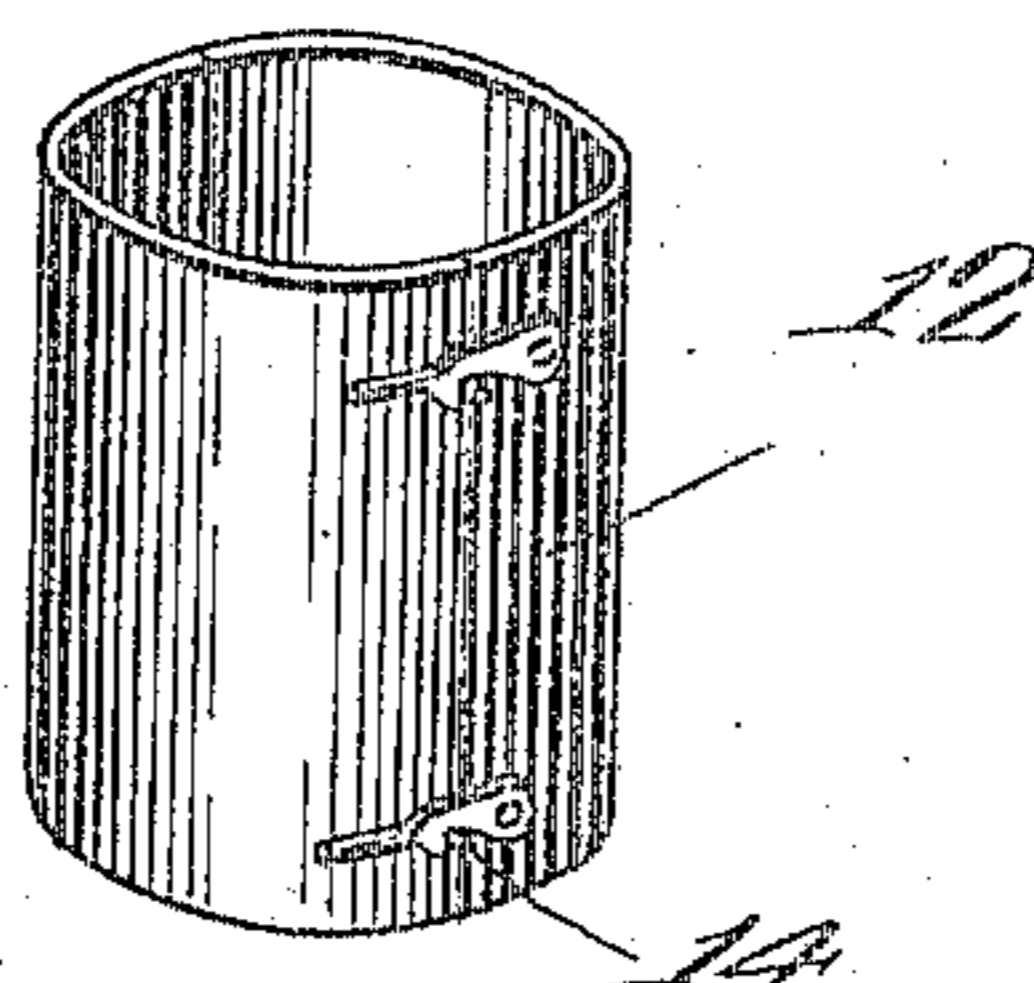


Fig. 4.



Witnesses

E. H. Hunt
L. H. Nicks

Inventor

Clifford R. Burlingame

By

C. A. Snow & Co.

Attorneys

UNITED STATES PATENT OFFICE.

CLIFFORD RAY BURLINGAME, OF ST. LOUIS, MICHIGAN.

PIPE-MACHINE.

948,104.

Specification of Letters Patent.

Patented Feb. 1, 1910.

Application filed October 10, 1908. Serial No. 457,166.

To all whom it may concern:

Be it known that I, CLIFFORD R. BURLINGAME, a citizen of the United States, residing at St. Louis, in the county of Gratiot and State of Michigan, have invented a new and useful Pipe-Machine, of which the following is a specification.

This invention relates to machines for making concrete tiles, pipes and the like and has for its object to provide a strong, durable and thoroughly efficient machine of this character by means of which artificial stone tiles may be conveniently and expeditiously manufactured.

A further object of the invention is to provide a tile making machine having a hollow core movable to operative position within the molding compartment after the latter has been filled with concrete.

A further object is to provide means for locking the mold in position on the supporting frame during the operation of the core, and means for discharging the surplus concrete through said core in the upward movement of the same.

A still further object of the invention is generally to improve this class of devices so as to increase their utility, durability and efficiency.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

In the accompanying drawings forming a part of this specification:—Figure 1 is a side elevation of a tile making machine constructed in accordance with my invention. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a top plan view. Fig. 4 is a perspective view of the mold detached. Fig. 5 is a top plan view of the operating lever detached.

Similar numerals of reference indicate corresponding parts in all of the figures of the drawings.

The tile making machine forming the subject matter of the present invention comprises a supporting frame including spaced corner posts or standards 5 connected by transverse and longitudinal braces 6 and 7 and on which is mounted a table 8.

Secured to the top of the table 8 is a circular disk or casting 9 having an opening formed therein which registers with a cor-

responding opening 10 formed in the table, said casting being provided with one or more lugs 11 arranged to bear against the exterior walls of the mold or shell 12. The mold or shell 12 is preferably formed in two sections pivotally united at 13, one of said sections being provided with spaced hooks 14 arranged to engage corresponding eyes secured to the mating section of the mold, thereby to lock said sections in closed position. The upper end of the mold 12 is open while the lower end thereof is provided with an inwardly extending flange 15 arranged to rest on the casting 9 with its inner edge preferably disposed in alinement with the inner edge of the opening 10 in the table. The purpose of the flange 15 is to retain the cement or concrete within the mold after the latter has been filled and tamped and during transportation of the mold from the place of filling to the machine.

Arranged above the mold 12 and pivotally mounted at 16 on a pair of spaced uprights 17 is a cover 18 arranged to bear against the top of the mold 12 and lock the same in position on the table 8 during the molding operation.

Secured to or formed integral with the lower face of the cover 18 are depending lugs 19 adapted to bear against the exterior wall of the mold 12 and which assist in centering the mold on the casting 9.

Pivotally mounted at 20 on the upright 17 is a locking member 21 preferably in the form of a flat bar having its lower end cut away to produce a shoulder 22 adapted to engage a transverse pin 23 seated in a kerf or recess 24 in the free end of the cover 18. The locking member or bar 24 is preferably extended longitudinally beyond the shoulder 22 to form a handle or finger piece 25, by means of which the locking member may be readily moved to operative or inoperative position. The lower ends of the standards 17 are preferably extended through suitable openings in the table 8 and are secured in any suitable manner to a transverse beam or platform 26 disposed beneath the table, as shown. If desired, however, the standards 17 instead of passing through openings in the table 8 may be secured in any suitable manner to the top of said table.

The platform 26 is provided with an opening 27 disposed in alinement with the opening 10 and in which is mounted for vertical movement a hollow core member 28. The

core member 28 is adapted to enter the molding compartment after the latter is filled with cement, concrete or other plastic material, thereby to form the inner wall of the tile or pipe, the surplus cement being removed from the mold and discharged through the core member 28 into a box or other suitable receptacle, indicated at 29.

Secured to the exterior walls of the core member 28 is a collar 30 to which is pivotally connected at 31 a yoke 32, the latter being provided with an operating handle 33, by means of which the core 28 may be moved to operative and inoperative positions. Journaled in suitable bearings 34 secured to the table 8 is a stub shaft 35 carrying depending links 36, which latter pass through spaced apertures 37 formed in the table 8 and are pivotally connected with the opposite sides of the yoke 32, as indicated at 38. Attention is here called to the fact that the upper edge of the core 28 is inclined or beveled at 39 to form a cutting edge so that the core will readily penetrate the cement when said core is moved to operative position within the molding compartment. It will also be noted that the inclined edges 39 by engagement with the cement will pack the latter against the interior walls of the mold 12 and thus form a solid homogeneous tile or pipe of uniform density without the necessity of tamping the material in the mold.

In operation, the cement, concrete, or other plastic material is introduced within the mold 12 and tamped in the usual manner, after which the mold is placed in position on the casting 9 and the cover 18 moved downwardly in contact with the top of the mold and locked in position by means of the lever 21. The operating handle 33 is then depressed which causes the core 28 to ascend and enter the molding compartment. As the core ascends, the material at the center of the mold will be discharged through the core into the receptacle 29, while the inclined edge 39 of said core will compress the material in the mold and thus permit the formation of a tile or pipe. After the locking lever 21 is released, the lever 33 is operated to lower the core 28 and the cover 18 is swung laterally against the uprights 17, thus permitting the removal of the mold together with the pipe or tile. When the mold has been removed from the table 8 the locking hooks 14 are released and the pivoted sections of the mold swung laterally to open position so as to permit the removal of the molded product. Attention is here called to the fact that the opening in the cover receives the inclined or beveled edge of the

core member 28 when the latter is moved to elevated or operative position, thereby to prevent chipping or cracking of the cement during the passage of the core through the same.

From the foregoing description it is thought that the construction and operation of the device will be readily understood by those skilled in the art and further description thereof is deemed unnecessary.

Having thus described the invention what is claimed is:—

1. A machine of the class described including a supporting frame, comprising a table and platform disposed in spaced relation, a disk secured to the table and provided with a plurality of centering lugs, a mold supported on the disk and bearing against said lugs, an upright extending above the table on one side of the disk, a cover pivotally mounted on the uprights and provided with depending centering lugs arranged to bear against the exterior walls of the mold, said cover being provided with a central aperture and having a kerf formed in the free end thereof, a pin extending transversely across the kerf, a locking lever pivotally mounted on the uprights and having its free end formed with a shoulder arranged to bear against the pin for locking the cover in engagement with the mold, a hollow core movable to operative position within the mold, and means for raising and lowering said core.

2. A machine of the class described including a supporting frame, a relatively stationary mold mounted on the frame, uprights forming a part of the frame, a cover pivotally connected with the uprights, and movable to operative position in engagement with the top of the mold, there being a kerf formed in the free end of the cover, a pin extending transversely across the kerf, a lever pivotally mounted on the uprights and having its free end formed with a shoulder adapted to bear against the pin, for locking the cover against swinging movement, a hollow vertically movable core arranged to enter the mold after the latter is filled, and means for operating the core, there being an opening formed in the cover and arranged to receive the upper end of the core when the latter is moved to elevated position.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

CLIFFORD RAY BURLINGAME.

Witnesses:

J. W. CAMPBELL,

J. L. BURLINGAME.