

No. 734,591.

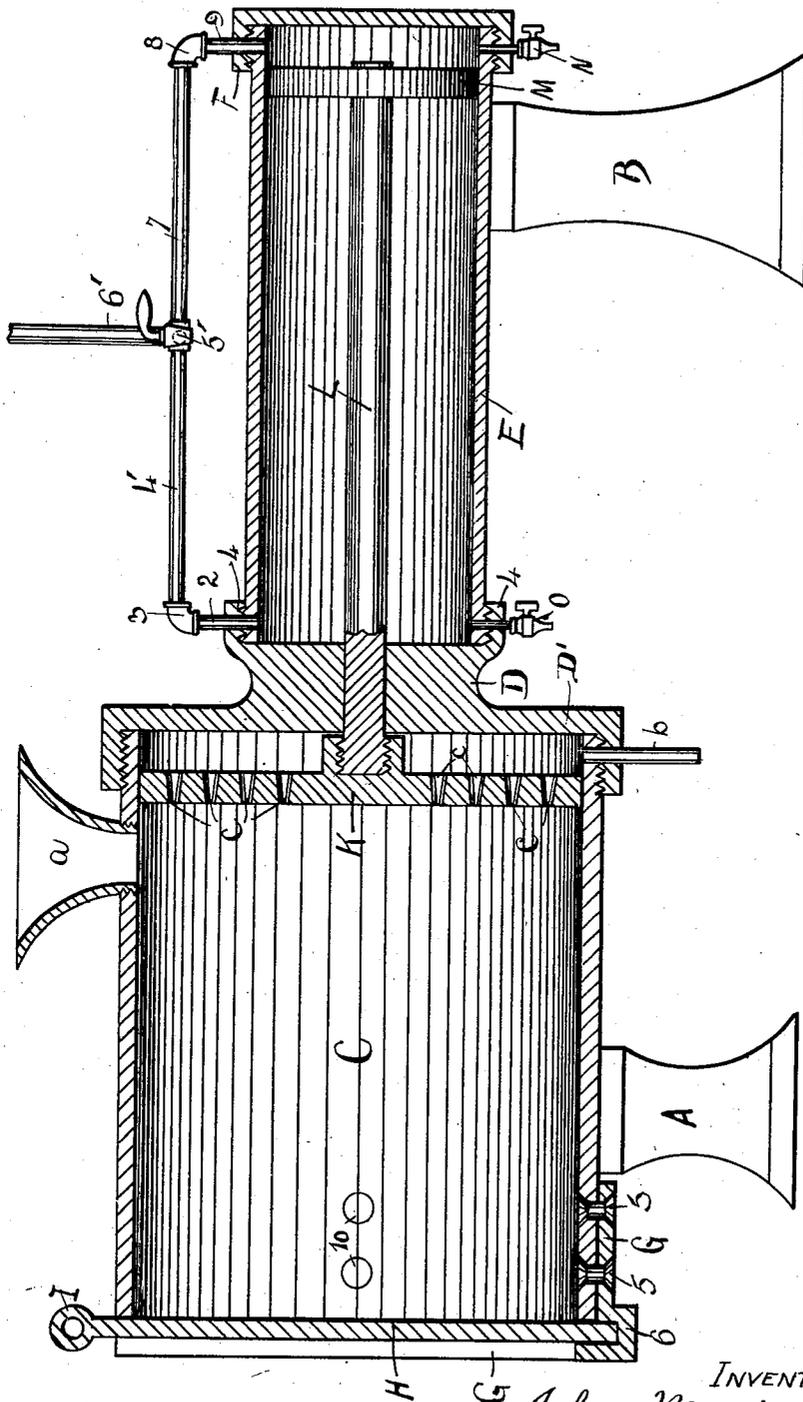
PATENTED JULY 28, 1903.

J. MORRISSEY & C. P. O'BRIEN.

TANKAGE PRESS.

APPLICATION FILED AUG. 19, 1901.

NO MODEL.



WITNESSES:

R. J. Davenport.
M. Boekhoff.

INVENTORS

John Morrissey
Cornelius P. O'Brien
PER *Geo. W. Sues*
ATTY

UNITED STATES PATENT OFFICE.

JOHN MORRISSEY, OF SOUTH OMAHA, AND CORNELIUS P. O'BRIEN, OF
OMAHA, NEBRASKA.

TANKAGE-PRESS.

SPECIFICATION forming part of Letters Patent No. 734,591, dated July 28, 1903.

Application filed August 19, 1901. Serial No. 72,496. (No model.)

To all whom it may concern:

Be it known that we, JOHN MORRISSEY, residing at South Omaha, and CORNELIUS P. O'BRIEN, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain useful Improvements in Presses; and we do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, which forms a part of this specification.

This invention relates to a new and novel improvement in presses.

The object of our invention is to provide a press adapted to be used in compressing and briquetting the solids within certain fluids, as compressing and briquetting the solid matter within the tankage refuse of slaughter-houses, though the device may be used in compressing other substances to extract the fluids therefrom.

A further object of the present invention is to incorporate in the construction of a press of the character mentioned a simple and strong connection between the compressing and power cylinders for effectually uniting the same and through the medium of which no support intermediate the outer ends of said cylinders is required.

In the accompanying drawing we have shown a central sectional view, with portions broken away, of a press embodying our invention.

Our invention embodies, essentially, a compressing-cylinder C, provided near one end with the intake or hopper *a* and the exit-pipe *b*, near the end to which the hopper is secured. Secured to this cylinder C, at the delivery end thereof, is a frame G, which is provided with the recurved edge 6, forming a retaining-flange, within which is slidably mounted the gate H; so that this gate may be drawn upward. It will be observed, however, that the frame G incases the delivery end of the cylinder C, thereby reinforcing said end against the lateral pressure exerted by the mass compressed under the influence of the piston to be hereinafter referred to, and also that the

retaining-flange 6 projects beyond and is spaced sufficiently from the end of the cylinder C to permit the gate H being introduced between the latter and said flange, whereby said gate occupies a position wholly on the exterior of said cylinder, but abutting against the end thereof, thereby preventing the cylinder being weakened by the formation therein of openings for the reception of the gate H. This gate H is above provided with a loop I, so that a rope or bar may be placed through the same in order to remove the gate H in case the matter has been tightly packed against the same. The frame G is secured to the cylinder by means of suitable rivets 5 and 10, as shown. This cylinder C is supported upon a suitable base A and is made of any desired size and has its end near the hopper exteriorly threaded to receive the connecting-head D, provided with a central opening, through which extends the piston-rod L, as shown. The head D comprises a cap D', having a screw-threaded flange which engages the threaded end of the cylinder C, and projecting from said cap is a neck which terminates in a cap 4 of less diameter than the cap D', said cap 4 having a screw-threaded flange arranged reversely to the flange of the cap D' and into which the threaded end of a power-cylinder E is screwed. The head D thereby forms a union between the compressing-cylinder C and the power-cylinder E, by means of which said cylinders are effectually connected in a simple and strong manner and through the medium of which no support intermediate the outer ends of said cylinders is required. The opposite end of the power-cylinder E is closed by the cap F, and said cylinder is supported by means of the base B.

Extending from the cylinder E, near the end where the same is united, by means of the head D, to the cylinder C, is an exit-pipe controlled by means of a stop-cock O, as shown, while at the opposite end this cylinder E is provided with an exit-pipe provided with the cock N, as disclosed in the drawing.

Secured to the piston-rod L is a perforated piston K, working within the compressing-cylinder C, which piston K is provided with a plurality of approximately cone-shaped

openings *c*, which openings enlarge toward the end of the cylinder within which the exit-pipe *b* is positioned. Entering the power-cylinder *E*, which is an air-cylinder, is a pipe 5 comprising the members 2, 3, and 4', the intermediate cock 5', and the pipe-sections 7, 8, and 9. Communicating with the cock 5' is the compressed-air-supply pipe 6', as shown. A piston *M* is secured to the other end of the 10 rod *L* and works within the air-cylinder *E*, the instrumentalities being arranged as shown in the drawing.

Now in collecting and pressing the solids, such as the blood and other particles within 15 so-called "packing-house" tankage, the tankage is fed through the hopper *a* to fill the cylinder *C*. The cock 5' is then operated to permit air entering the cylinder *E* at the rear of the piston *M* to force the piston *K* forward to 20 compress and briquet the solids within the tankage. After the piston has been fed forward as far as possible the air is cut off, when the gate *H* is removed and the air is again admitted, so that the piston *K* again travels 25 forward to expel the briqueted and compressed mass. The cock 5' is then operated to permit the entering of air upon the opposite side or in front of the piston *M*, the cock 30 *N* being opened to permit the escape of the air from the rear side of said piston *M*, so that the pistons *K* and *M* again assume their original position, as shown in the drawing. When the pistons are fed forward to compress 35 the mass, the cock *O* is opened to permit the egress of the air. As the piston *K* is advanced the finer particles and the liquid as it escapes through the openings *c* fill the rear of the cylinder *C* and escape through the pipe *b*.

This tankage-press may be made of any 40 suitable size or shape, and,

Having thus described our said invention, what we claim as new, and desire to secure by United States Letters Patent, is—

1. In a press of the class described, the combination with a compressing-cylinder having 45 an inlet for the material to be compressed and an outlet therefor, a power-cylinder, pistons arranged in said cylinders, and a piston-rod connecting said pistons, of a connecting-head 50 interposed between the compressing and power cylinders and comprising a cap fitted to the compressing-cylinder, a neck formed upon said cap, and a cap formed upon the end of said neck opposite to the first-mentioned cap and fitted to the power-cylinder. 55

2. In a press of the class described, the combination with a compressing-cylinder having 60 an inlet for the material to be compressed and an outlet therefor, a power-cylinder, pistons arranged in said cylinders, and a piston-rod connecting said pistons, said cylinders having their adjacent ends screw-threaded, of a connecting-head interposed between the compressing and power cylinders and comprising 65 a cap having a screw-threaded flange engaging the screw-threaded end of the compressing-cylinder, a neck formed upon said cap, and a cap formed upon the end of said neck opposite to the first-mentioned cap and having 70 a screw-threaded flange engaging the screw-threaded end of the power-cylinder.

JOHN MORRISSEY.
CORNELIUS P. O'BRIEN.

In presence of—
JOSEPH F. MURPHY,
JAMES W. MURPHY.