Sheet 1 - 3 Sheets.

E. Dayton.

Flasks for Drain Pipe.

No. 45229. Patented Nov. 29. 1864

Fig. 1.

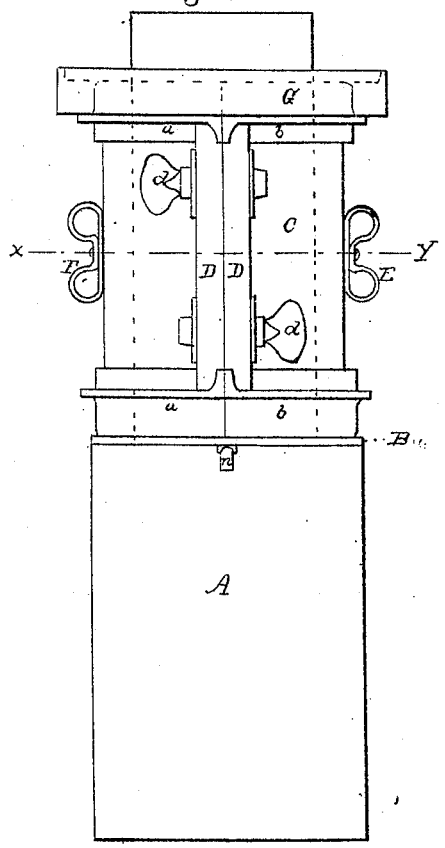
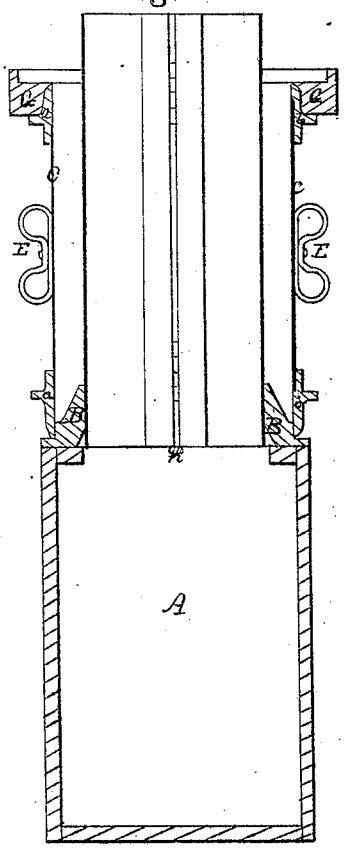


Fig. 2.



Witnesses:

John E Earle.

Rufus Langford

Inventor:

Edwin Dayton

Sheet 2. 3 Sheets

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Fig. 3

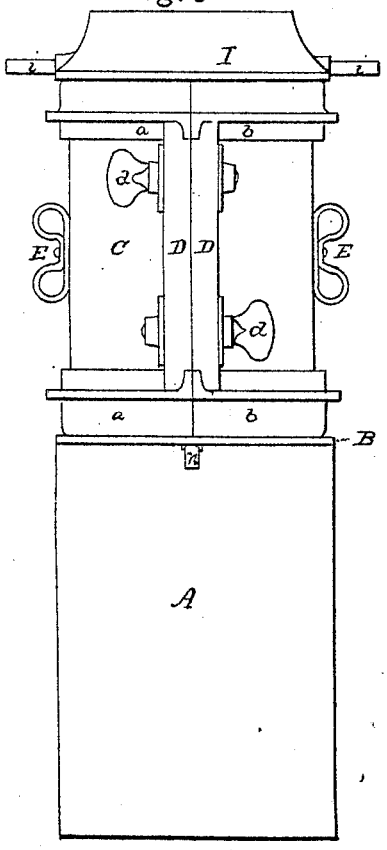


Fig. 4.

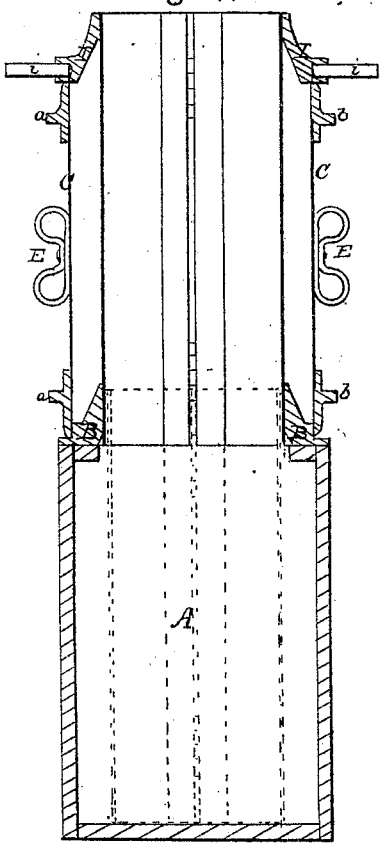


Fig. 5

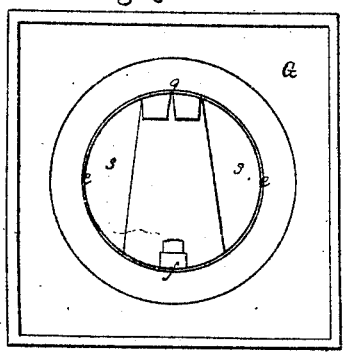
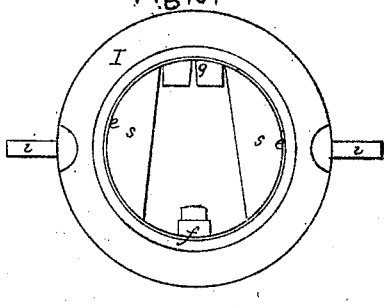


Fig. 6.



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Sheet 3_3 Sheets.

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Fig 7.

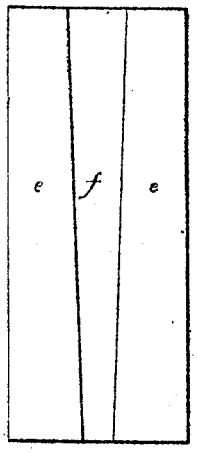


Fig 8.

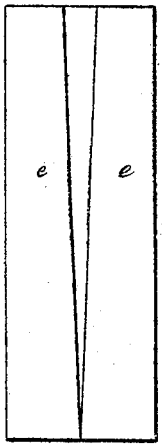


Fig 9.

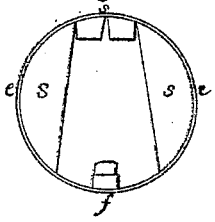


Fig 10.

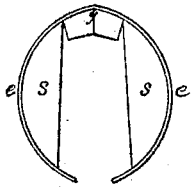
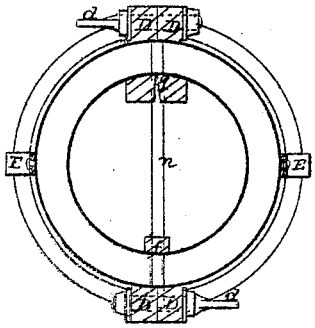


Fig 11.



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UNITED STATES PATENT OFFICE.

EDWIN DAYTON, OF MERIDEN, CONNECTICUT.

IMPROVEMENT IN FLASKS FOR DRAIN-PIPES.

Specification forming part of Letters Patent No. 45,229, dated November 29, 1864.

To all whom it may concern:

Be it known that I, EDWIN DAYTON, of New Haven, in the county of New Haven and State of Connecticut, have invented new and useful Improvements in Flasks for Making Drain-Pipe; and I do hereby declare the following to be a full, clear, and exact description of the same, when taken in connection with the accompanying drawings and the letters of reference marked thereon, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view as arranged for filling the flask; Fig. 2, a vertical central section of the same; Fig. 3, a side view as arranged for finishing the pipe; Fig. 4, a vertical central section of the same; Fig. 5, a top view of Fig. 1; Fig. 6, a top view of Fig. 3. Figs. 7, 8, 9, and 10 illustrate the construction of the core; Fig. 11, a cross-section of the flask on lines *x y*.

Same letters in the several figures indicate corresponding parts.

My invention relates to the construction of flasks employed in the manufacture of cement pipe, (so called from the fact that hydraulic cement is the principal part of the composition,) for draining and hydraulic purposes.

To enable others skilled in the art to construct and use my invention, I will proceed to describe the same, as illustrated in the accompanying drawings.

A is a pit below the flask, and on which rests the base B of the flask. The said base is a solid ring, constructed to form and finish one end of the pipe, as seen in section, Figs. 2 and 4. Over the said base B and onto a shoulder sets the flask, constructed as follows: I form two divided rings, *a b*, as nearly alike as possible, the interior diameter the same as the exterior of the pipe to be made. One of the said rings forms each an end of the flask. I form a shoulder on the inner side of each of the said rings, to receive the body of the flask C, as seen in Figs. 2 and 4. I form the body of the flask of sheet-iron or other suitable material, and of proper thickness to stand the strain upon it, and divide the body of the case C in like manner as the rings *a b*, then set the said rings onto the body of the flask or case C, as seen in Figs. 2 and 4, and rivet or otherwise secure the parts together, forming the shell of the flask in two parts, as see Fig. 11. Then onto the two edges of the two parts of the case I fix flanges D D, as see Figs. 1, 3, and 11, through which I insert screws *d d*, the body of the screw fitted to fill the hole in the said flange so as to bring the two parts together and insure the joint to be smooth on the inside of the case, the upper and lower screws to be inserted from opposite sides, as seen in Figs. 1 and 3, and at points equidistant from each end, so that whichever way the two parts are set together the screws will fit in all positions, thereby avoiding the obvious trouble which must arise were they not so constructed.

E E are eyes or handles placed upon opposite sides of the case, by which to move it, as occasion may require. The case, as thus constructed, will set down over the base, and therefore must be the depth of the shoulder longer than the pipe to be formed, as see Figs. 2 and 4, and for the purpose more fully hereinafter shown.

The core is constructed of sheet-iron or other material sufficiently strong not to spring, and strengthened, if need be, by braces *s*. It is, when complete, a cylinder of the diameter of the inside of the pipe to be formed; is constructed in three parts, *e e* and *f*, as follows (see Fig. 9:) Two parts, *e e*, are hinged together at *g*, each part firm and rigid in itself. The other part, *f*, is in the form of a wedge. (See Fig. 7.) The two adjoining edges of the parts *e e* are formed to correspond. The wedge *f* is constructed so that it may be easily withdrawn from the core, and when so withdrawn the two parts *e e* may be brought together, as in Figs. 8 and 10, so as to somewhat reduce the circumference of the core, for the purpose hereinafter described. A bar, *n*, is placed over the pit under the base, projecting out so that it may be easily withdrawn, as in Figs. 1, 2, and 11. Set the core within the base and resting on the bar *n*, as in Figs. 2 and 4; set the case over the base, as before described.

G is a platform placed over the flask, as in Figs. 1, 2, and 5, on which to place a supply of stock for the convenience of the workmen, who from thence feed the stock into the space between the case and core, pressing or tamping it down in any known manner until the flask is filled. The base will form one end of the pipe. The other end should be formed the reverse, which I do in the following manner:

I is a ring, (see Figs. 3, 4, and 6,) its inte-

rior of the form required for the upper end of the pipe. When the flask is full or up to the platform, I remove the platform, place more stock on the flask, set the ring on over the core, which forms a guide for the ring, force down the ring by pressure or otherwise, then by means of its handles *i i* give to the said ring a few whole or partial revolutions to smooth the surface, and the pipe is finished. Remove the ring I, draw out the wedge *f* from the core, close the core, as in Figs. 8 and 10, draw out the bar *n*, and the core will fall into the pit A below. Then by the handles on the case lift the case and with it the pipe. Set it from the base. The flask is made longer than the pipe, so that in removing from the base or setting it down the edge of the pipe will be thereby protected. To remove the case from the pipe take out the screws *d d*, and each part may be separately removed.

As before shown, no especial care need be exercised in putting the two parts of the case together. The same may be said of the position of the case on the base. As both ends are alike, either end will fit as well over the base.

By fitting the rings over the edge of body of the case, as described, I avoid all danger of turning the edge of the metal in the operation of filling the flask.

By the broad surface of the rings at their joint and the flanges the parts are more firmly held together than could be were the two parts locked together in the usual manner.

By the construction of the core described, an even diameter and perfect circle throughout is maintained, whereas by hinged and locked or elastic cores both of the above advantages are practically impossible.

The pit A is not essential, as the core may be lifted from the pipe; but in so doing there is great danger of breaking the upper edge of the pipe; therefore I find the pit, as described, in combination with the core very useful.

I do not claim as of my invention a tubular core, as such is not new. Neither do I claim a ring or collar for the purpose of forming one end of the pipe. Neither do I claim a feeding or stock-supplying table, as such are not new.

What I claim as new and useful, and desire to secure by Letters Patent, is—

1. A case constructed substantially as described, so that the parts may be united in any position in which they may be set together, for the purpose specified.

2. The rings forming the two ends of the case, in combination with the body of the case when constructed so as to protect the edges of the case, substantially as described.

3. The combination of a case and base, when constructed so that the case may be longer than the pipe to be formed therein, substantially as and for the purpose specified.

4. The herein-described core, constructed substantially as and for the purpose specified.

5. The pit described, in combination with core, case, and base, forming a flask for the manufacture of pipe, substantially as and for the purpose specified.

Witnesses: EDWIN DAYTON.
JOHN E. EARLE,
RUFUS SANFORD.