(No Model.)

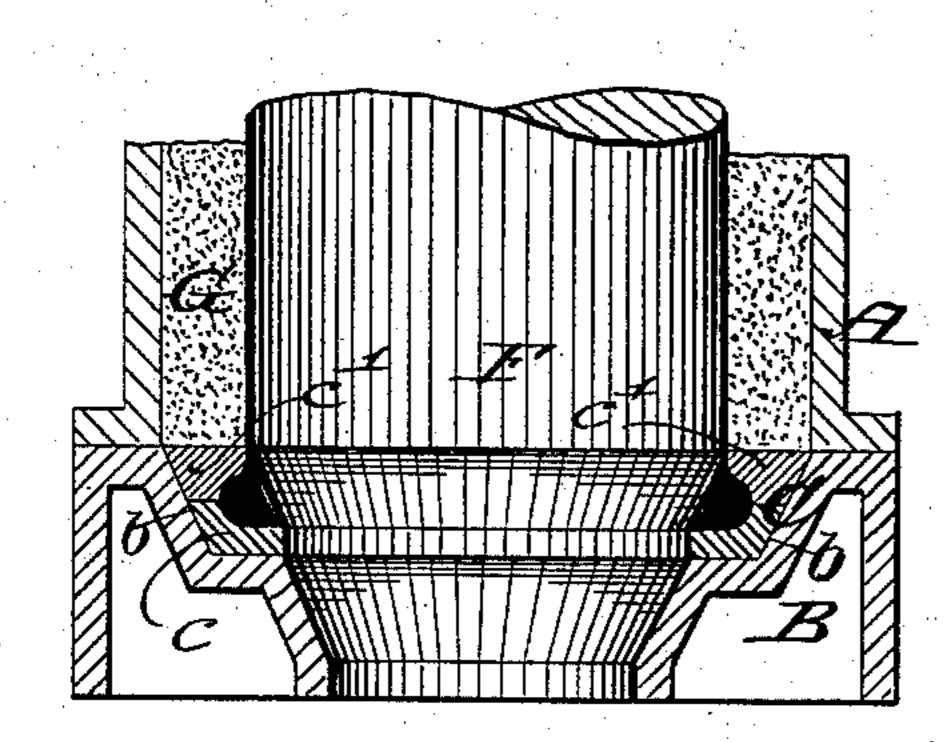
## F. SHICKLE.

## PIPE MOLDING APPARATUS.

No. 261,963.

Patented Aug. 1, 1882.

Fig.I.



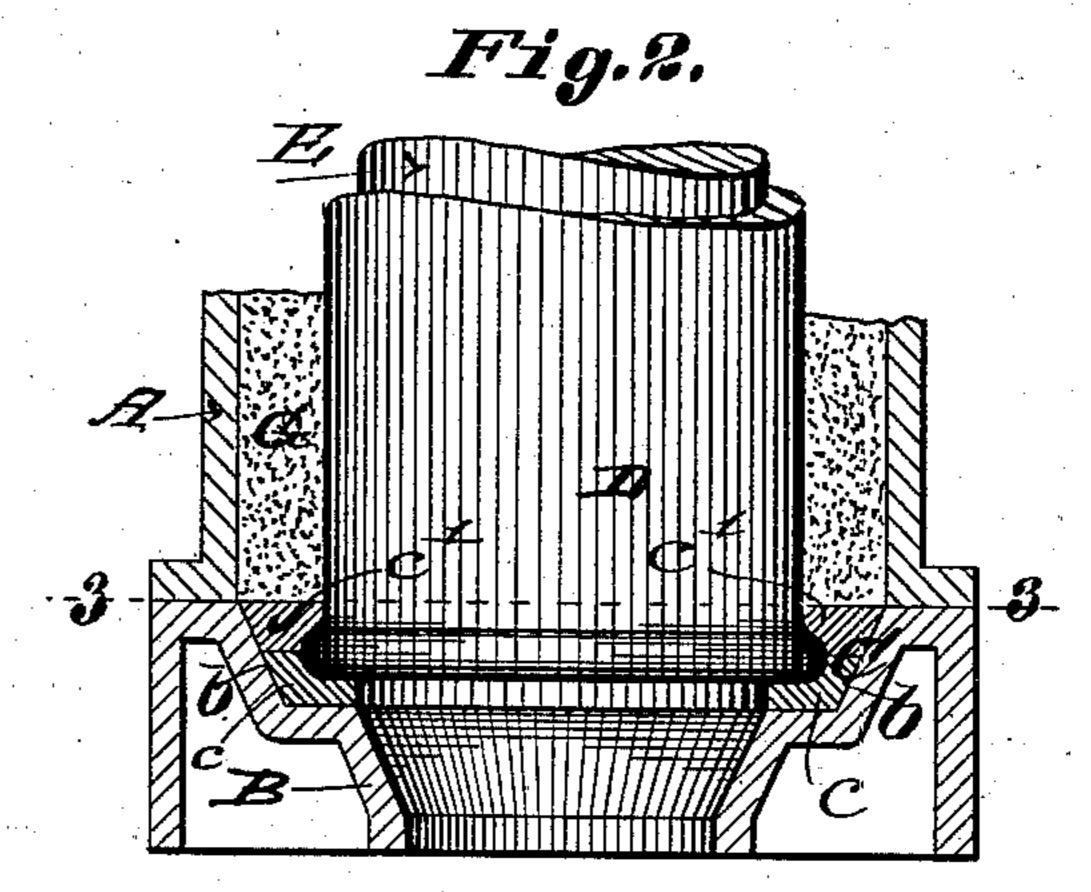
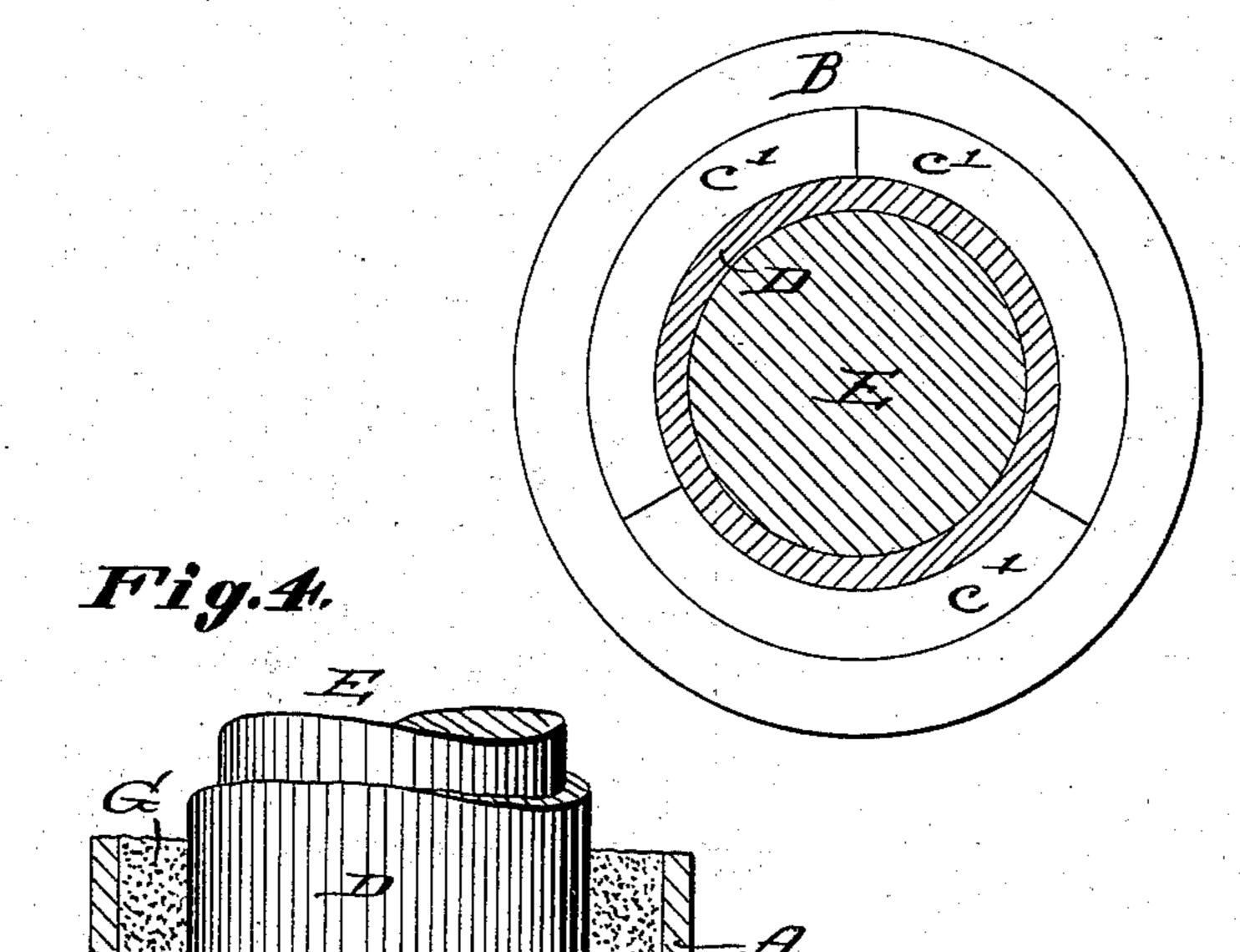


Fig.3.



Attest: Charles Probles Fund. V. Hayd Inventor:
Fiederick Shickle
by Openood;
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## United States Patent Office.

FREDERICK SHICKLE, OF ST. LOUIS, MISSOURI.

## PIPE-MOLDING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 261,963, dated August 1, 1882.

Application filed April 29, 1882. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK SHICKLE, of St. Louis, Missouri, have made a new and useful Improvement in Pipe-Molding Appatratus, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a section of the lower end of the flask, and showing the bead-ring in section and the pattern in elevation; Fig. 2, a similar view of the flask, but showing the pipe and core in elevation; Fig. 3, a horizontal section taken on the line 3 3 of Fig. 2; and Fig. 4, a view similar to that of Fig. 2, but showing the bead-ring slightly modified, and the flask-bottom being flat in place of having a recess to receive the bead-ring.

The same letters denote the same parts.

The present improvement relates to that part of the molding apparatus used in forming the bead of the pipe.

A, Figs. 1, 2, represents the shell or body of the flask, and B the flask-bottom.

C represents the improved bead-ring, or that part of the mold that forms the bead of the pipe. The improvement in the bead-ring consists partly in dividing it horizontally at or about the level of the largest diameter of the bead-ring, and partly in subdividing vertically the upper half of the bead-ring into sections, and as seen in Figs. 1, 2, 3, the ring C being divided horizontally to separate the lower part, c, from the upper part of the ring,

and said upper part being divided vertically 35 into two or more sections, c' c' c'. Thus made, the lower part, c, of the ring drops from the pipe D when the latter is removed from the flask, and the upper parts, c' c' c', can be readily taken off the pipe. The ring thus con- 40 structed can be used either with a flask-bottom having a recess, such as shown at b, Figs. 1, 2, or with a flat flask-bottom such as shown at B', Fig. 4. When used with a flat flask-bottom the ring may be made to occupy 45 the space between the pipe and the shell of the flask; or it may occupy only a portion of the space, in which case, and as shown in Fig. 4, the lower part, c, of the ring may have an extension or flange,  $c^2$ , for the purpose of hold- 50 ing the sections c' c' c' in place.

E, Figs. 2, 4, represents the core used in casting the pipe, and F, Fig. 1, represents the pattern. G represents the sand.

1. A bead-ring for forming the whole of the bead on a pipe, said ring being detachable from the mold and being divided horizontally, as and for the purpose described.

2. A bead-ring, C, divided to form the parts 60 c and c' c' c', substantially as described.

3. The combination of the part c, having the flange  $c^2$ , and the sections c'c'c', substantially as described.

FREDERICK SHICKLE.

Witnesses:

C. D. Moody, Saml. S. Boyd.