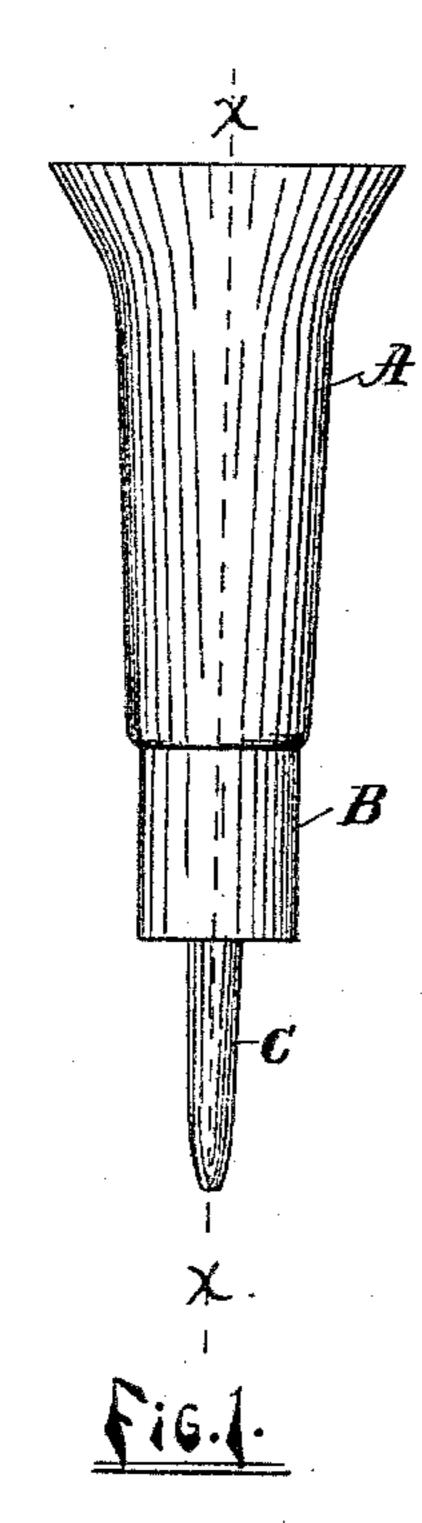
(No Model.)

## D. J. HEAPHY. MOLDER'S SPRUE.

No. 411,962.

Patented Oct. 1, 1889.



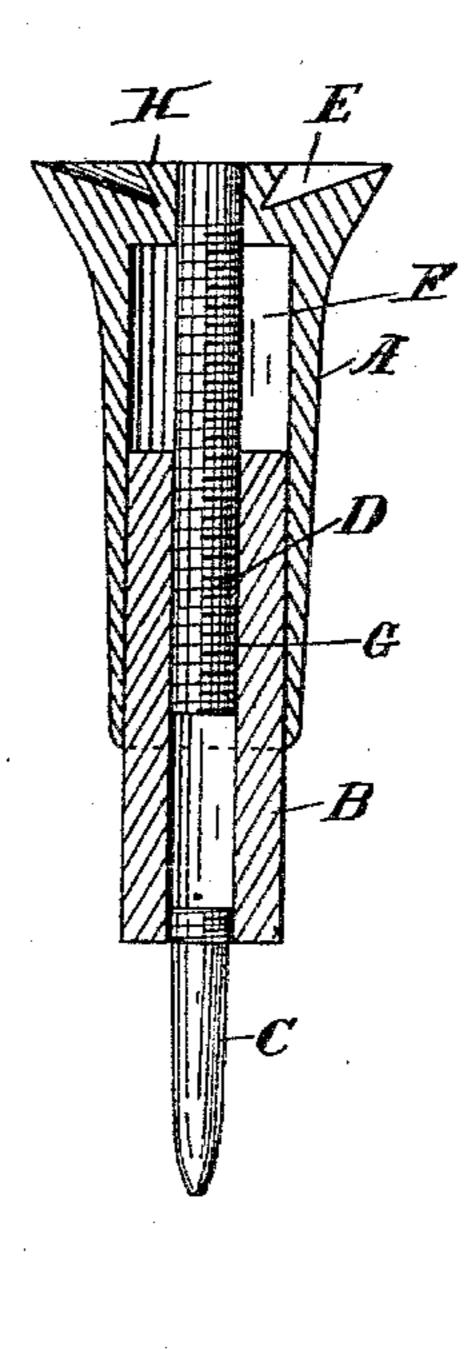


Fig.2

Witnesses Opphellemey, Wharles M. Tufto,

Inventor

Daniel J. Heaphy.

By Kis Attorneys

Moulton Hogers.

## United States Patent Office.

DANIEL J. HEAPHY, OF GRAND RAPIDS, MICHIGAN.

## MOLDER'S SPRUE.

SPECIFICATION forming part of Letters Patent No. 411,962, dated October 1, 1889.

Application filed March 5, 1889. Serial No. 301,981. (No model.)

To all whom it may concern:

Be it known that I, Daniel J. Heaphy, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Molders' Sprues; and I do hereby declare the following to be 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.

My invention relates to the construction of a longitudinally-extensible molder's sprue; and it consists in the construction and arrangement of the parts herein described, and pointed out in the claims.

Referring to the drawings, Figure 1 is an elevation; Fig. 2, a vertical section on the line

 $x x ext{ of Fig. 1.}$ 

Like letters of reference refer to like parts

in each of the figures.

A is the body of the implement, having a conical head provided upon its face with a flanged hub, which is flanged or recessed back from the face by the countersink E, so as to enable the hub to be grasped by the workman for removing the sprue. The body A has the central chamber F, in which is secured the threaded pin D.

30 B is an extensible cylinder, which has a threaded chamber adapted to receive the pin D, for elongating and shortening the sprue, and also has the pointed pin C secured at its lower end. The extension and shortening of the sprue are accomplished by simply screwing and unscrewing the parts after they are

adjusted, as above described.

What I claim to have invented, and desire to secure by Letters Patent, is—

1. A molder's sprue constructed in two 40 parts and provided with means, substantially as described, for effecting permanent longitudinal extension.

2. In a molder's sprue constructed in two parts and having a body provided with a 45 conical head, a cylindrical extensible part provided with means for effecting permanent longitudinal extension, substantially as described.

3. In a molder's sprue constructed in two 50 parts for the purpose of effecting permanent longitudinal extension, a body provided with a central longitudinal chamber adapted to a cylindrical extensible part, in combination with a cylindrical extensible part provided 55 with means for effecting permanent longitudinal extension, substantially as described.

4. In a molder's sprue, the combination and arrangement of the body A, having chamber F and pin D, the part B, and pin C, arranged 60

substantially as described.

5. In a molder's sprue, the combination and arrangement of a fixed or non-movable part, and movable or extensible part provided with means of permanent screw adjustment, sub- 65 stantially as described.

Intestimony whereof I affix my signature in

presence of two witnesses.

DANIEL J. HEAPHY.

Witnesses:

DENNIS L. ROGERS, LUTHER V. MOULTON.