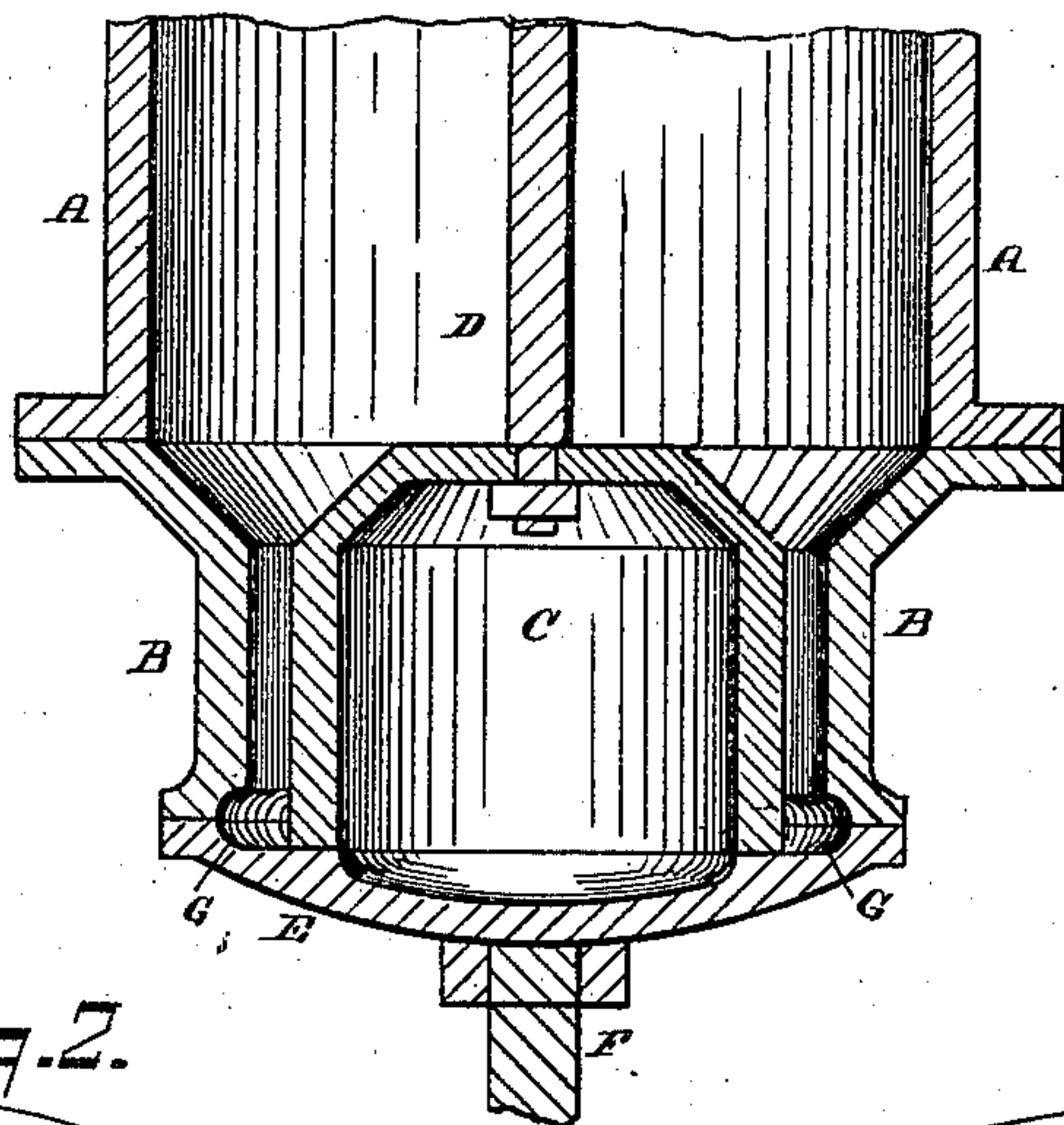
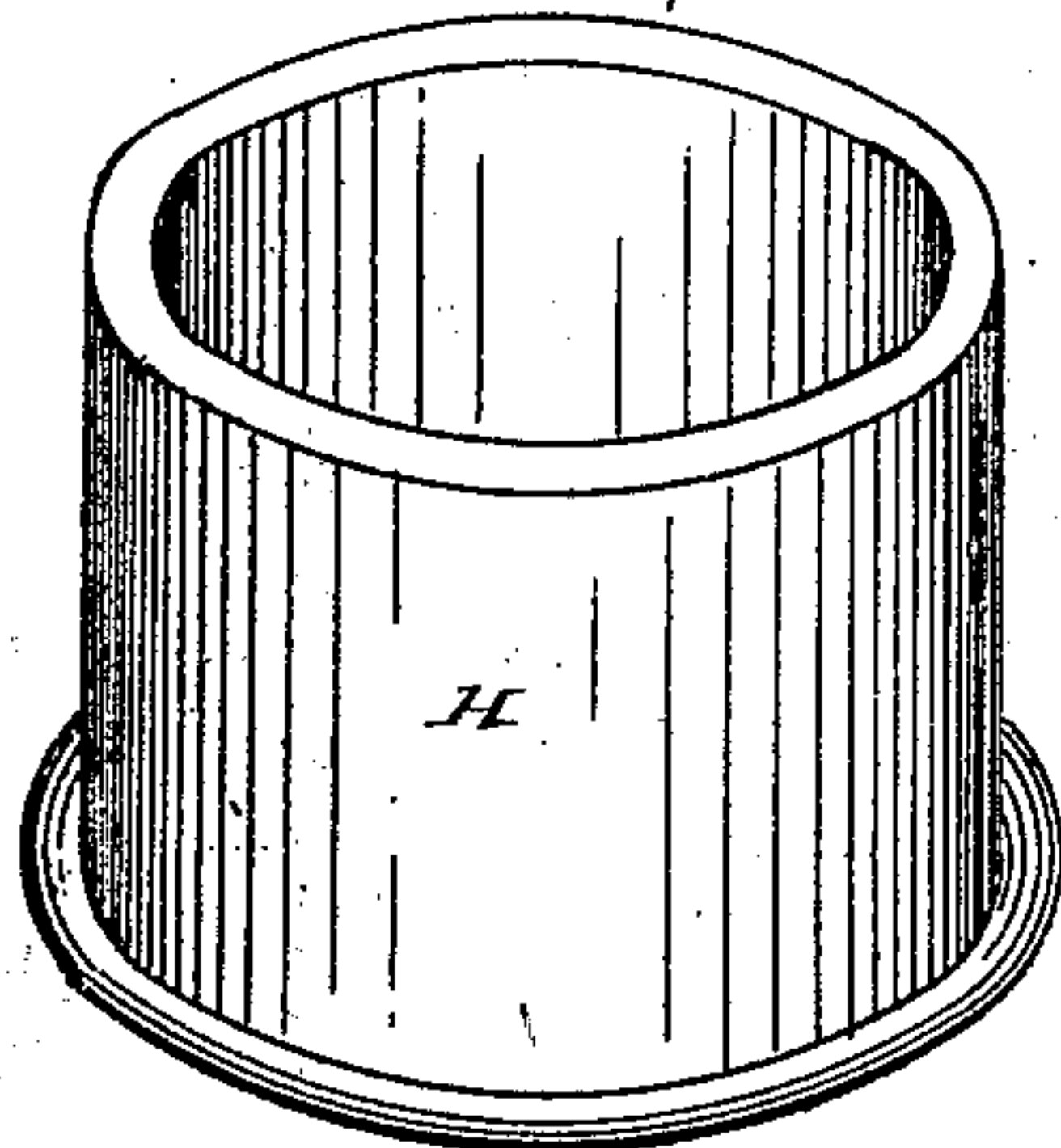


T. JOHNSON.  
Process of Making Earthenware Vessels.  
No. 197,861.                      Patented Dec. 4, 1877.

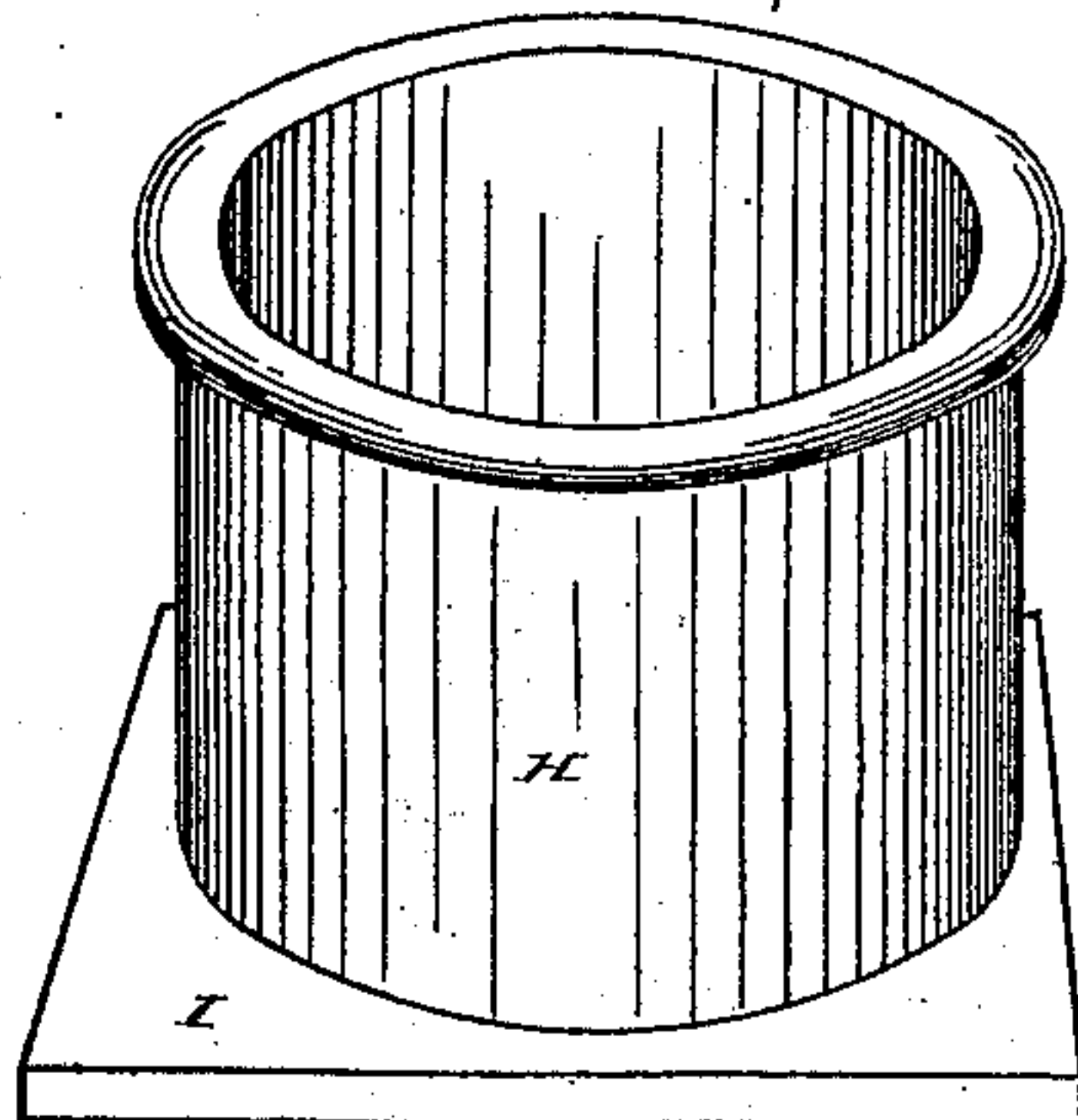
*Fig. 1.*



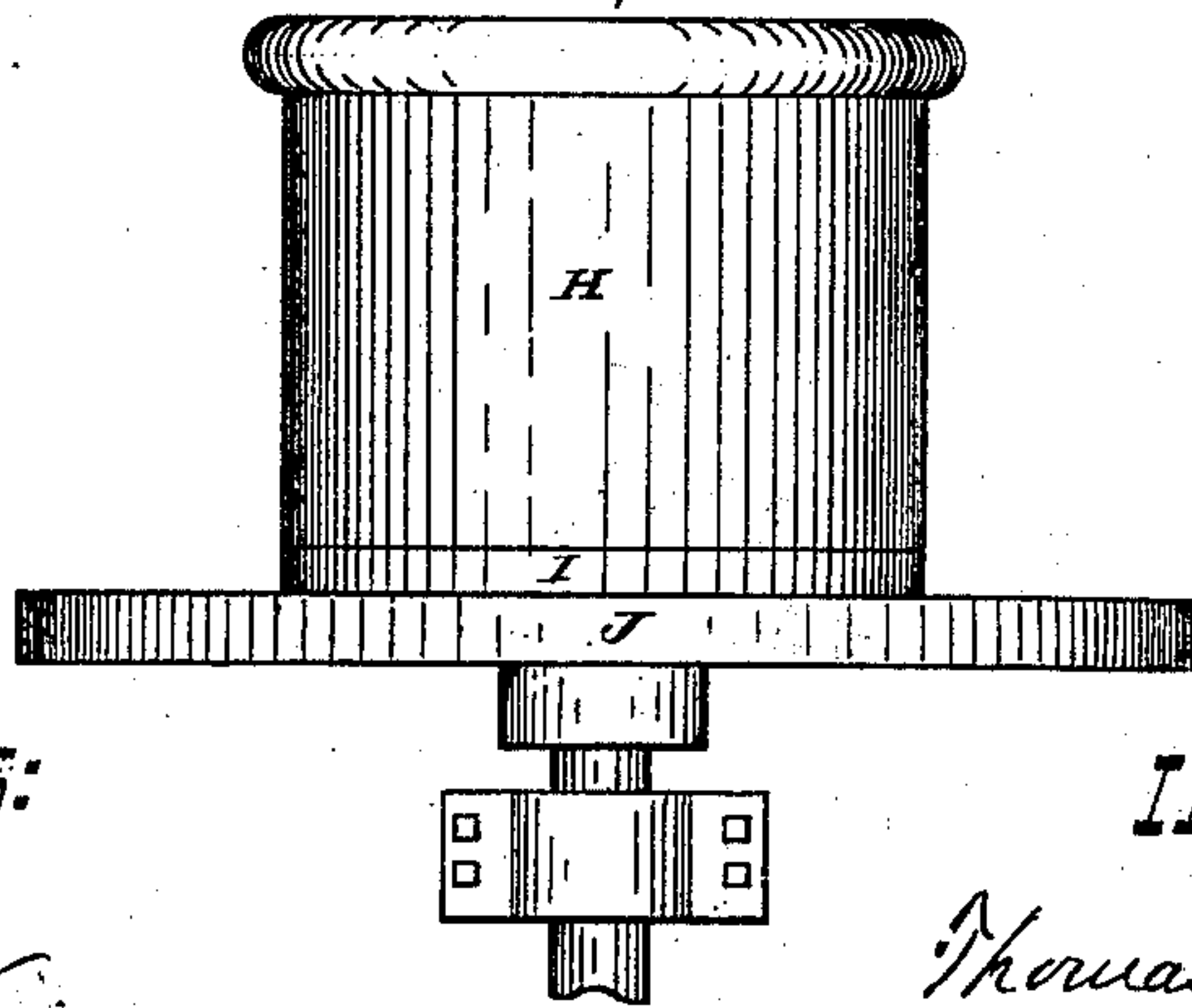
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



WITNESSES:

*J. M. Araya*  
*Geo. Mc. Wright*

INVENTOR:

*Thomas Johnson*  
*by Humphrey & Stuart*  
*his attys.*



# UNITED STATES PATENT OFFICE.

THOMAS JOHNSON, OF AKRON, OHIO, ASSIGNOR TO THE BUCKEYE SEWER PIPE COMPANY, OF SAME PLACE.

## IMPROVEMENT IN PROCESSES OF MAKING EARTHENWARE VESSELS.

Specification forming part of Letters Patent No. **197,861**, dated December 4, 1877; application filed August 27, 1877.

*To all whom it may concern:*

Be it known that I, THOMAS JOHNSON, of the city of Akron, in the county of Summit and State of Ohio, have invented an Improved Process of Making Earthenware Vessels, of which the following is a specification:

My invention has relation to the manufacture of earthenware crocks of circular cross-section with straight sides and of the same diameter throughout, and having a rim or fillet around the top.

Such crocks are ordinarily made by hand upon a turner's wheel, and the process of their construction is slow, and, as it can only be accomplished by skilled workmen, necessarily expensive.

The object of my invention is to construct these crocks by machinery mainly, leaving but a small part of the process to be performed by hand.

I accomplish this by first forming the body of the crock in the same manner that sewer-pipe is made, by pressing the tempered clay through an annular orifice in a continuous tube, and cutting it off into suitable lengths or sections, having first formed a rim upon each section by arresting the descent of the clay at the point of discharge until it shall have filled a suitable mold, constructed partially in the outer die surrounding the annular orifice, and partially in a lower die fitted and adapted to be firmly held against the orifice until the rim is formed.

This part of my invention will be readily understood by reference to the accompanying drawings, wherein—

Figure 1 represents a central vertical section of a portion of a sewer-pipe press provided with suitable dies to form crock-bodies.

A is the press-cylinder, to which is attached the outer die B, within which is suspended the inner die C by the rod D, leaving between them an annular space of the size of the body of the crock.

A lower die, E, supported and adapted to be raised and lowered by a follow-rod, F, fits closely against the lower face of the dies B C, and prevents any issue of clay until desired, and has around the inner part a groove, G,

which, in connection with a corresponding groove in the lower end of the outer die B, forms a mold, within which the rim of the crock is formed.

In operation the die E is raised and locked against the face of the dies B C. The tempered clay in the cylinder is then forced downward until it fills the annular space between the die B C and the groove G. The die E is then withdrawn, and the clay pressed out to a suitable length and cut off in the form shown by H, Fig. 2.

To attach a bottom to this body so formed I take a mass of tempered clay and beat, roll, or otherwise mold it into a layer of suitable thickness for a bottom, or, preferably, take one of the pressed bodies, and, having split and spread it flat, invert the freshly-pressed body thereon, as shown in Fig. 3. The bottom I is then trimmed to conform to the shape of the body, and the whole then placed on a turner's wheel, J, Fig. 4, revolved, and the joint finished by hand.

I make no claim to the process of pressing clay through an annular orifice between inside and outside dies, nor for an opening die simply as such, as I am aware that the same have been used for making socket sewer-pipe; but

What I claim, and desire to protect by Letters Patent, is—

1. The herein-described process of constructing earthenware-vessel bodies by forcing the material thereof through an annular orifice, arresting its flow at the point of discharge until it shall have filled a groove surrounding the annular orifice at that point to form a rim for the crock-body, then permitting the material to flow in a tube to the desired length, substantially as shown.

2. In combination with the dies B and C, having an annular space between them for forming the body of the vessel, the die E, and the annular groove formed in the dies E and B, for the formation of the rim of the vessel, substantially as set forth.

THOMAS JOHNSON.

Witnesses:

C. P. HUMPHREY,  
JOHN WEMMER.