

R. K. STORY.
MOLD FLASK.

APPLICATION FILED NOV. 22, 1907.

917,678.

Patented Apr. 6, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

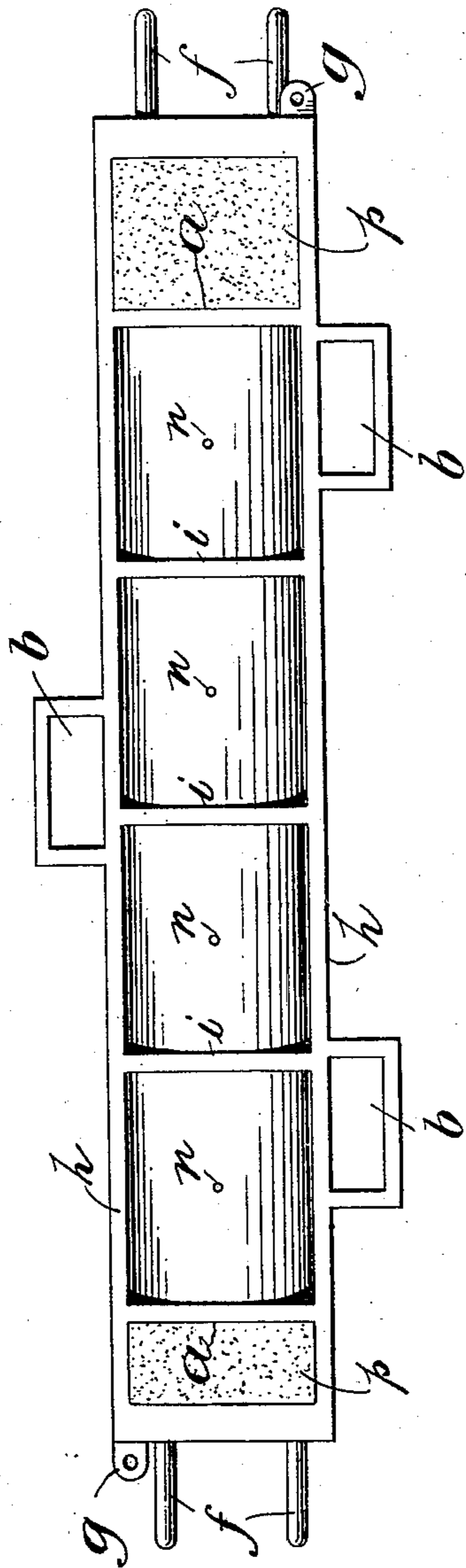
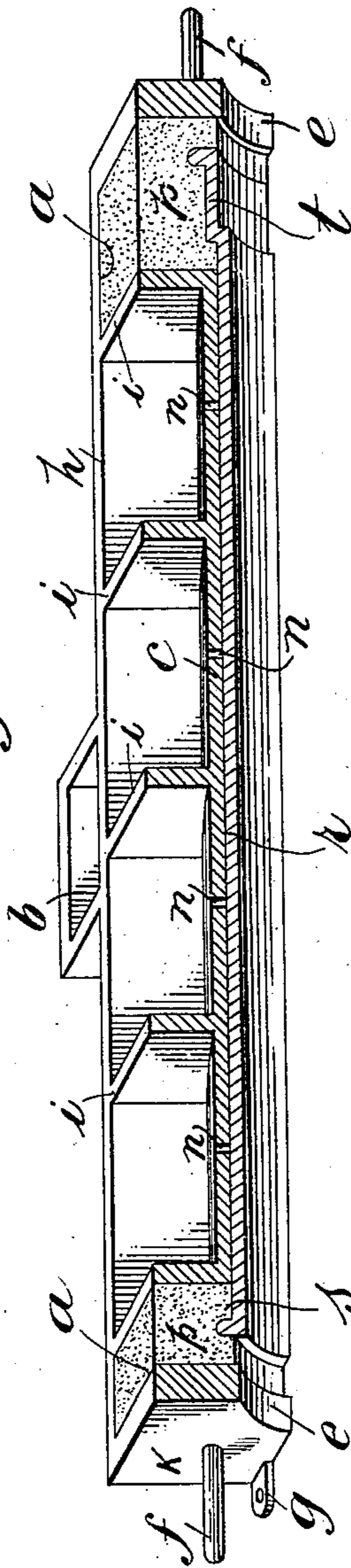


Fig. 2.



Attest:
W. H. Crook
John J. Millin

by

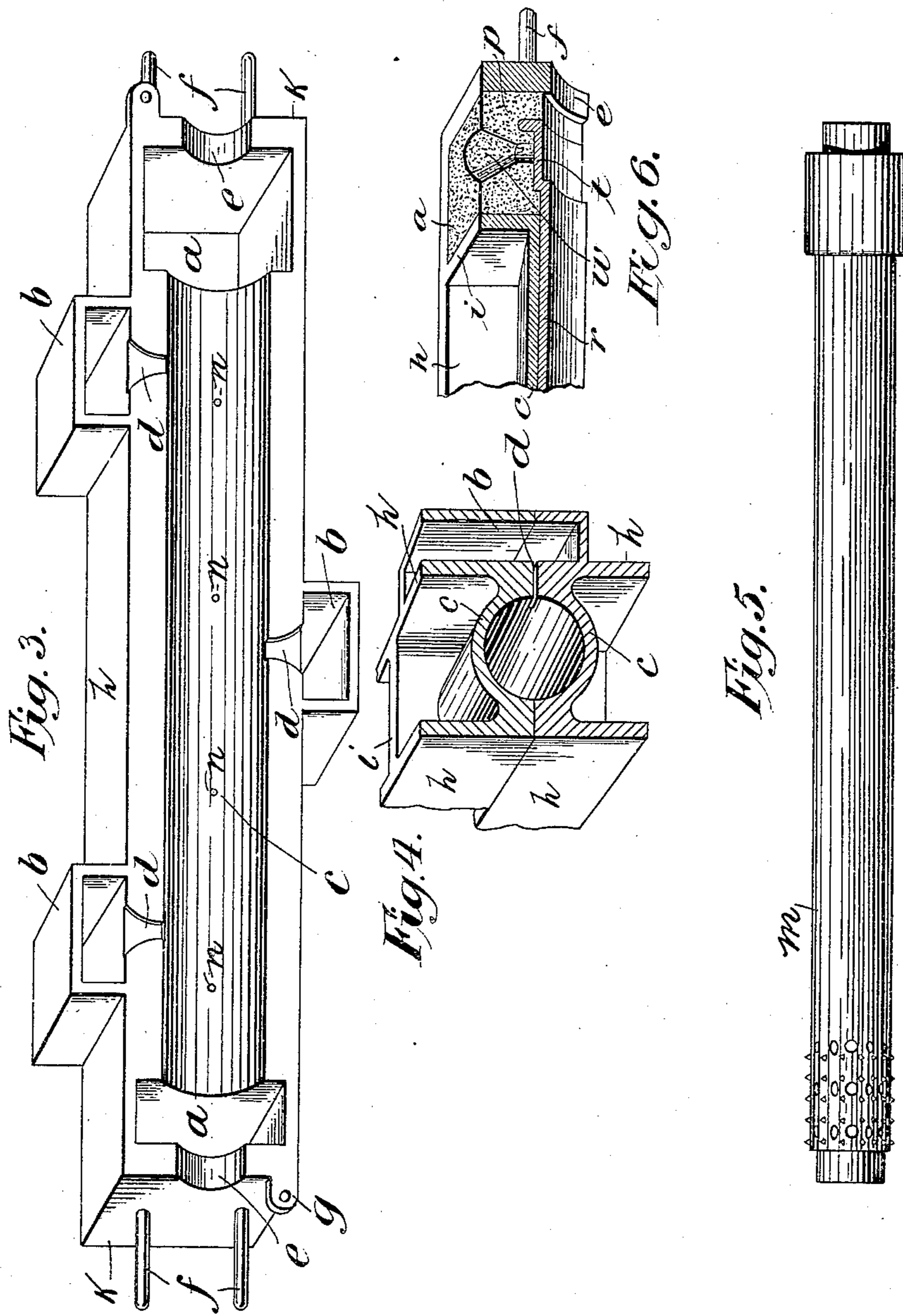
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Robert Knight Story
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2 SHEETS—SHEET 2.



Attest:

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Inventor:
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UNITED STATES PATENT OFFICE.

ROBERT KNIGHT STORY, OF BROOKLYN, NEW YORK.

MOLD-FLASK.

No. 917,678.

Specification of Letters Patent.

Patented April 6, 1909.

Application filed November 22, 1907. Serial No. 403,278.

To all whom it may concern:

Be it known that I, ROBERT KNIGHT STORY, a citizen of the United States, and resident of the borough of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Mold-Flasks, of which the following is a specification.

This invention relates to mold-flasks used in casting metals in various shapes. Its organization comprises a flask, the body of which is made of material like metal which will not easily yield to strains, and sand prints connected to said body portion which latter will yield or crush when subjected to undue strains.

This invention is specially applicable when casting objects having longitudinal axes which are greatly in excess of their cross-sectional dimensions, and it is specifically applicable for casting pipes, hollow columns radiators and the like.

In the accompanying drawings and description the invention is shown arranged and adapted for casting what is commonly known as hub and spigot pipe.

Figure 1 represents a plan view of a flask with the invention incorporated therein, Fig. 2 shows an axial sectional perspective view of one-half of the flask with a pipe, Fig. 3 is a perspective view of one of the members of the flask, Fig. 4 represents a cross-sectional perspective view of the flask with its two members in operative position, Fig. 5 shows a hollow core barrel applicable to the flask shown, and Fig. 6 shows a portion of Fig. 2 with a modification.

The flask consists preferably of two members a cope and drag, and each member is shown to comprise one-half of a cylindrical non-yielding or rigid body portion or half barrel *c*, which is preferably made of metal. Each half barrel *c* has extending therefrom the walls *h* on the opposite sides of the longitudinal axis thereof. Each pair of opposite walls *h* are connected by the cross-ribs *i*. In the abutting faces of each half barrel *c* are formed gates *d* that connect with gate pockets *b* formed with and extending from the walls *h*.

At the ends of the members of the flask are formed integral therewith print pockets *a*, and in the end walls *k* of said members are formed bearings *e*, for a core *m* that is used with the flask. The bearings will se-

cure the core in proper position to obtain castings of uniform thickness.

Vent openings *n* may be made in the half barrels *c*. Lugs *g* extend from the walls *k* to connect the members of the flask in proper positions by means of pins, not shown, and handles *f* extend from the same walls *k* to handle the members of the flask. In the print pockets *a* are shown the yielding or sand prints *p*, and in the latter, gates may be formed and the gates *d* dispensed with, to modify the invention. This modification is shown in Fig. 6 where a gate *W* is formed in the sand print *p*.

When using the flask the members thereof are connected in the ordinary manner, and molten metal is poured into one or all of the gate pockets *b*, and by means of the gates *d* the metal finds its way into the barrel composed of the half barrels *c*, around the core *m* which is located therein. The ends *s* and *t* of pipe *r* are formed with the sand prints *p*, and when the flask with its charge begins to cool and the pipe *r* shrinks, the said sand prints give way or crush and thereby prevent injury to the pipe.

This invention dispenses with the green sand molds commonly used for this class of work, and it is evident that flasks with this invention can be used with only one sand print, or with a plurality of such sand prints. The drawings show a single flask in which one pipe can be cast, and it is evident that the invention can be applied to a flask which will cast a plurality of pipes or other objects.

Having described my invention I claim:

1. In a mold flask the combination of a rigid body portion and a pair of sand print pockets integral therewith.

2. In a mold flask the combination of a rigid body portion, a pair of print pockets integral therewith and a pair of yielding sand prints in said pockets.

3. In a mold flask the combination of a rigid body portion, print pockets integral with the body portion, a gate extending from the body portion, a gate pocket connected with the gate, and yielding sand prints in said pockets connected with said rigid body portion.

4. In a mold flask the combination of two members, a rigid half barrel in each member, a print pocket at each end of the flask integral with the half barrels, sand prints in

the pockets, gates connected with the half barrels and a gate pocket connected with each gate.

5 5. In a mold flask the combination of two members, a metallic body portion in each member, a print pocket at each end of the flask integral with the body portions, sand prints in the said pockets, gates connected with the metallic body portions and a gate
10 pocket connected with each gate.

6. In a mold flask the combination of a rigid body portion, a plurality of print pockets integral with the body portion, and a plurality of yielding sand prints connected
15 with the rigid body portion and located in the print pockets.

7. In a mold flask the combination of two members, a rigid half barrel in each member, a print pocket at the ends of each half barrel and integral therewith, sand prints in 20 the pockets, gates connected with the said half barrels, a gate pocket for each gate, and ribs extending from the outer surface of each half barrel.

Signed at the borough of Manhattan in 25 the county of New York and State of New York this 19th day of November A. D. 1907.

ROBERT KNIGHT STORY.

Witnesses:

L. HOLZMANN,
GEO. F. BENTLEY.