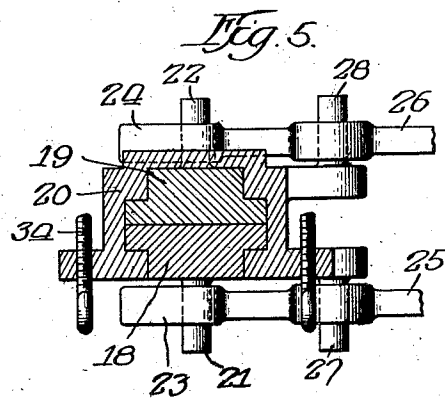
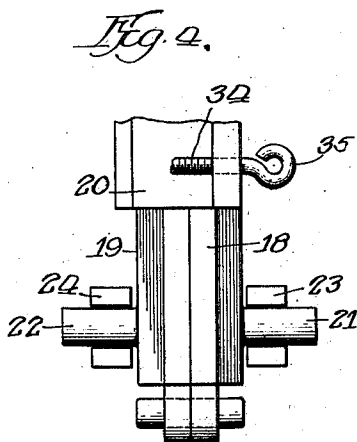
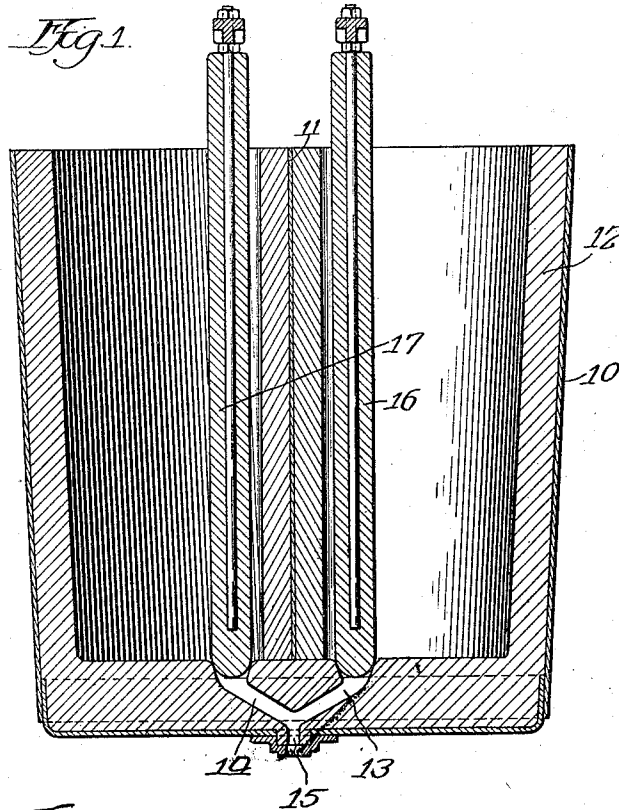


G. E. SCOTT.
 DUPLEX LADLE.
 APPLICATION FILED MAR. 18, 1916.

1,192,467.

Patented July 25, 1916.

2 SHEETS—SHEET 1.



Witnesses:

Geo. E. Scott

W. F. Murray

Inventor

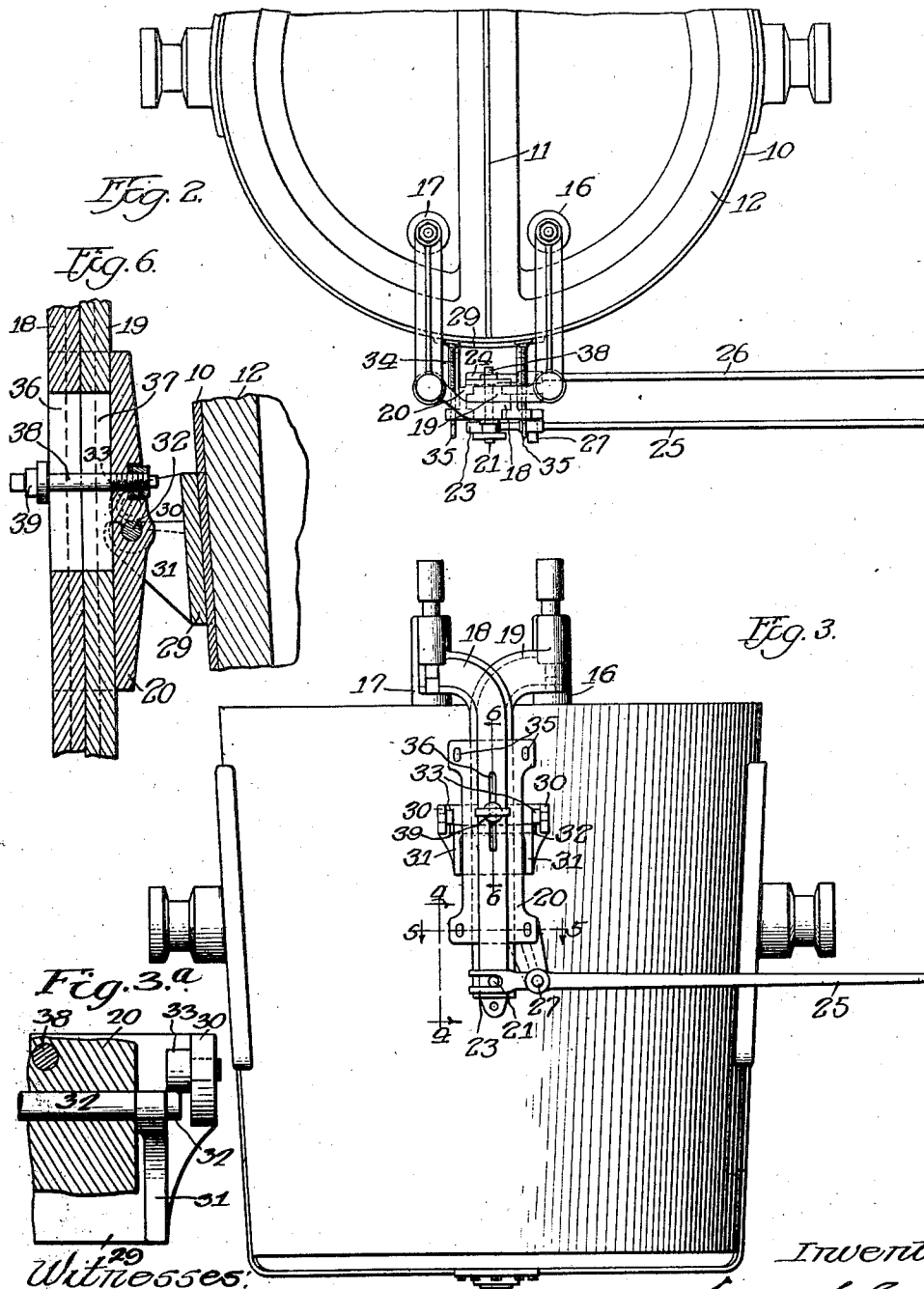
George E. Scott

By *C. C. Lathrop*
 Atty.

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Witnesses:
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UNITED STATES PATENT OFFICE.

GEORGE E. SCOTT, OF CHICAGO, ILLINOIS, ASSIGNOR TO AMERICAN STEEL FOUNDRIES,
OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

DUPLEX LADLE.

1,192,467.

Specification of Letters Patent.

Patented July 25, 1916.

Application filed March 18, 1916. Serial No. 85,001.

To all whom it may concern:

Be it known that I, GEORGE E. SCOTT, a citizen of the United States, and resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Duplex Ladles, of which the following is a specification.

My invention relates to the art of producing iron and steel and has particular reference to a novel ladle.

In the handling and casting of iron and steel, and particularly the latter, it frequently becomes necessary, or desirable, to provide two kinds of steel in the same casting, as, for instance, in the production of a cast steel wheel having a hard tread and flange portion and a soft web and hub. Heretofore, in order to pour two kinds of steel, it has been necessary to provide two ladles and to pour from the same in sequence, thus necessitating considerable loss of time in moving the ladles and entirely obviating the possibility of pouring the two kinds of steel simultaneously. It is frequently desirable to form an alloy steel, or an alloy metal, the alloy being most advantageously formed by uniting the two kinds of metal at the pouring spout.

An object, therefore, in my invention is to provide means, in the form of a duplex ladle, for retaining two or more kinds of metal, with mechanism enabling the pouring of either kind of metal or of both kinds simultaneously, if desired.

The invention will be more readily understood by reference to the accompanying drawings, wherein—

Figure 1 is a vertical section through a ladle constructed in accordance with my invention; Fig. 2 is a partial plan view thereof; Fig. 3 is an elevation; Fig. 3^a is an enlarged fragmentary view, partly in elevation and partly in vertical section, showing the means for retaining the lever supporting device in place; Fig. 4 is a fragmentary elevation taken on the line 4—4 of Fig. 3; Fig. 5 is a section on the line 5—5 of Fig. 3, and Fig. 6 is a sectional view on the line 6—6 of Fig. 3.

As shown, the ladle may comprise a metal shell 10 and a transverse division wall 11, also of metal. The two compartments thus formed are suitably lined with refractory material 12, thereby providing accommodation for two kinds of metal within the same

ladle. Each compartment has bottom outlets 13, 14, which unite at 15 in a pouring spout. The outlets 13, 14, are controlled by the usual stoppers 16, 17, respectively, connected to and operable by the slides 18, 19, at the side of the ladle. These slides are held within a casting 20, suitably secured to the ladle. Each of the slides 18, 19, is provided with a pin, or lug, 21, 22, with which the forked ends 23, 24 of levers 25, 26 engage, the levers being fulcrumed on pins 27, 28 carried by the casting 20. The casting 20 is secured in a bracket 29, secured to the shell of the ladle, the bracket providing two pairs of ears 30, 31. Apertures are provided in the ears 30, and open top recesses in the ears 31. The casting 20 is held by means of a pin 32, which rests in the open top recesses in the ears 31, this pin being held against accidental vertical displacement by means of plugs or pins 33, which are accommodated in the apertures in the ears 30, as best shown in Figs. 3 and 3^a. It will be noted that the plugs 33 are intended for removal inwardly before the pin 32 can be lifted from its seat in the ears 31. Thus it will be seen that the casting 20 is pivoted on the bracket 29 and is held in adjusted position by means of the screw-threaded adjusting rods 34, the heads 35 of which are clearly shown in Fig. 3. As a means for securely locking both slides, I provide slots 36, 37, in each of the slides. A bolt 38 projects through these slots, which bolt terminates in an actuating head 39, best shown in Figs. 3 and 6. After the ladle has been filled with molten metal, and before the same is to be poured, the bolt is actuated to lock the slide against accidental movement. When metal is to be poured, the bolt is released and the slides may be actuated either in unison, or singly, as desired, by means of the levers 25, 26.

Obviously the exact form of the operating means is immaterial and might be varied considerably without departure from the spirit of my invention.

I claim:

1. In a ladle, the combination of a container having a division wall whereby a plurality of compartments are provided, a single pouring outlet being provided for said plurality of compartments, manually controlled means for controlling the discharge of metal from either of said com-

partments or from all thereof, and means for locking said manually-controlled means for unitary operation, substantially as described.

5 2. In a device for handling molten metal, the combination of a shell having a division wall, thereby providing a plurality of compartments, each compartment being provided with an outlet opening which terminates in a common pouring outlet, and
10 means for controlling the flow of metal from said compartments, whereby metal may be discharged through said common outlet from either or all of said compartments by
15 a single actuation, substantially as described.

3. In a device of the class described, the combination of a shell having a division wall whereby the shell is divided into a
20 plurality of compartments, an outlet opening being provided at the bottom of each compartment, which openings join in a common outlet, or pouring opening, a manu-

ally controlled stopper for each outlet, and means for locking or releasing one or all of
25 said stoppers, substantially as described.

4. In combination, a ladle, providing a plurality of compartments for the reception of different kinds of molten metal, pouring openings for said compartments, stop-
30 pers for said pouring openings, and means for locking said stoppers together for actuation in unison, substantially as described.

5. In combination, a ladle having a plurality of compartments and provided with
35 a pouring outlet for each compartment, which pouring outlets are joined into a common outlet, a stopper for each outlet and means for locking said stoppers for actuation in unison, substantially as described.
40

Signed at Chicago, Illinois, this 15th day of March, A. D. 1916.

GEORGE E. SCOTT.

Witnesses:

OWEN W. MIDDLETON,
W. S. SPIETH.