No. 629,538. Patented July 25, 1899.

G. P. BASSETT, Jr.

SOCKET IRON FOR CASTING PIPE.

(No Model.) (Application filed Feb. 10, 1898.)

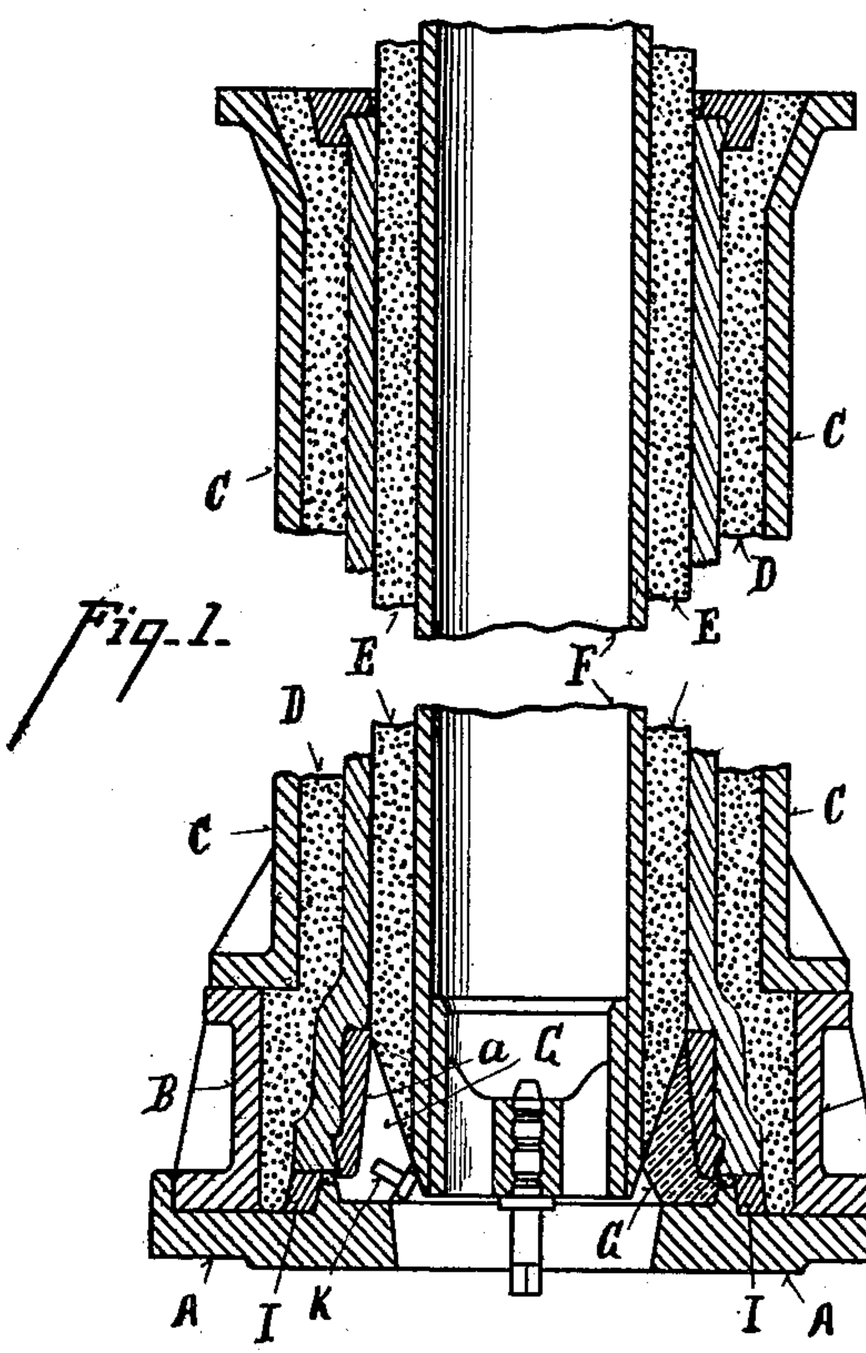

Fig. 1.

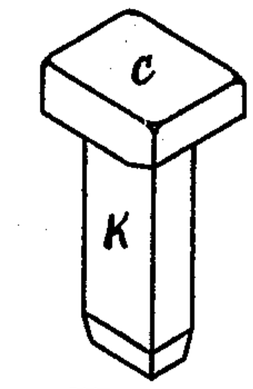

Fig. 6.

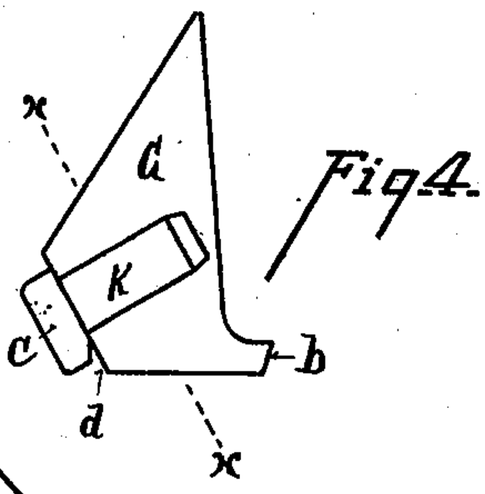

Fig. 4.

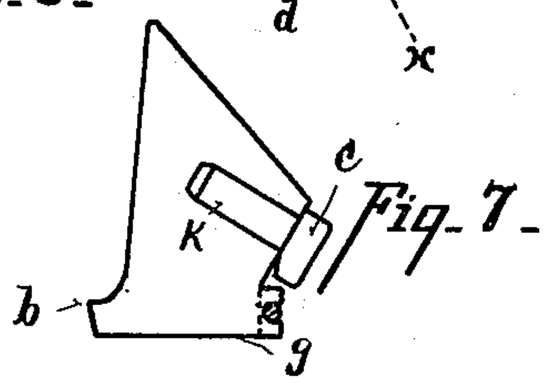

Fig. 7.

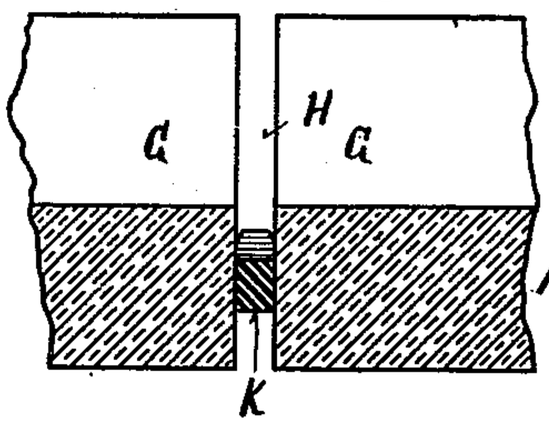

Fig. 5.

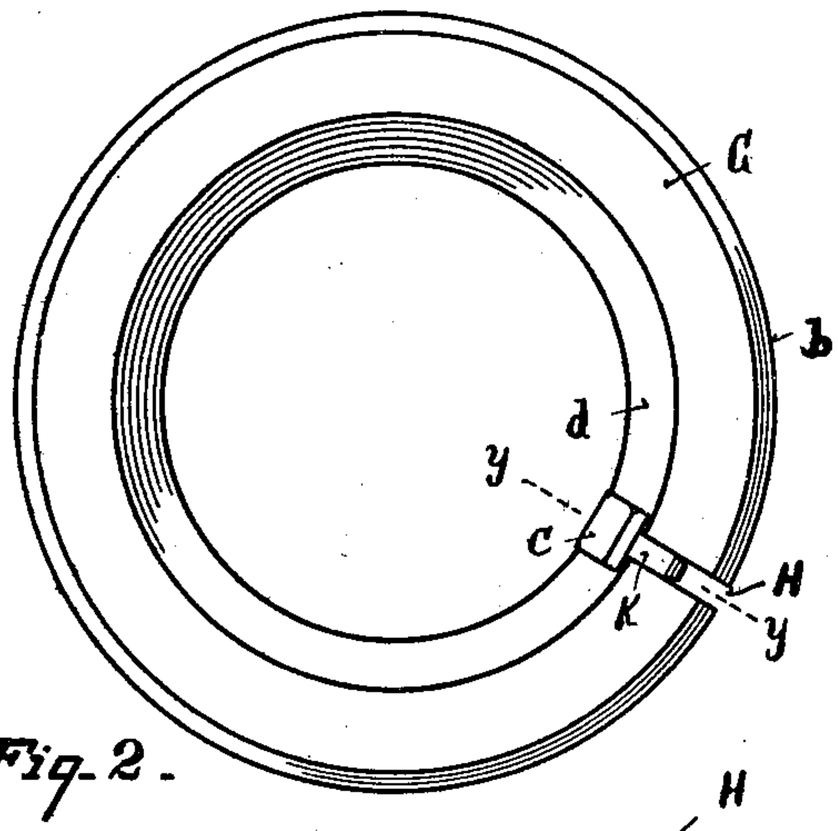

Fig. 2.

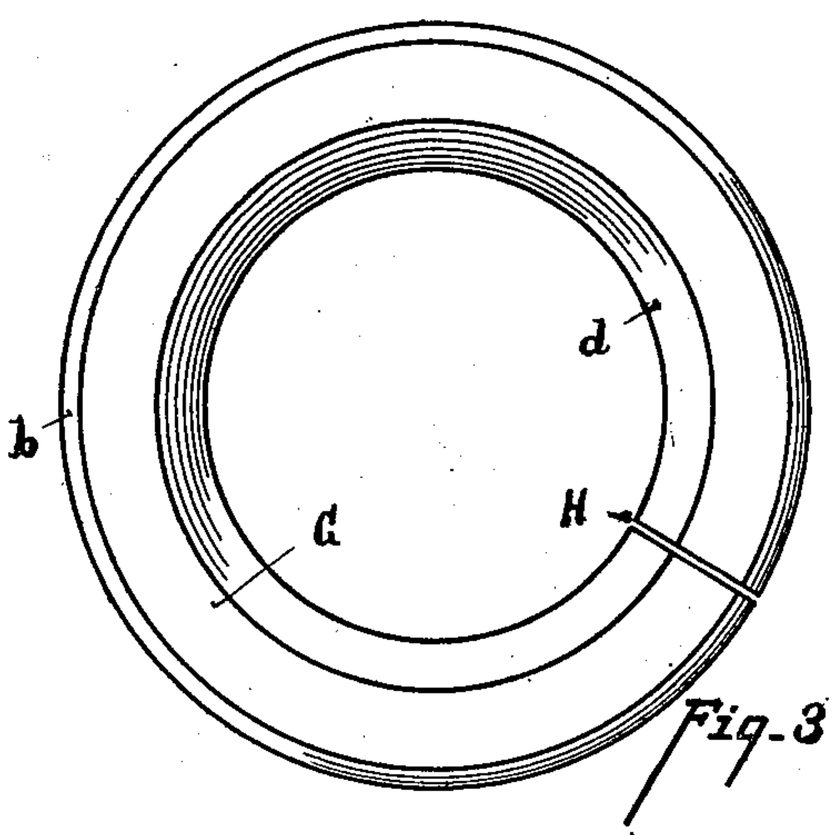

Fig. 3.

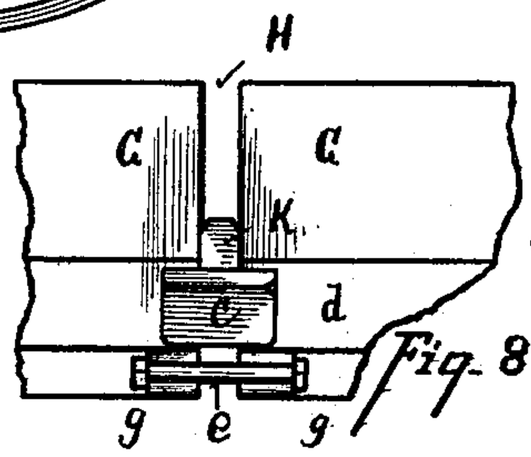

Fig. 8.

Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE P. BASSETT, JR., OF CINCINNATI, OHIO.

SOCKET-IRON FOR CASTING PIPE.

SPECIFICATION forming part of Letters Patent No. 629,538, dated July 25, 1899.

Application filed February 10, 1898. Serial No. 669,854. (No model.)

To all whom it may concern:

Be it known that I, GEORGE P. BASSETT, Jr., residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Socket-Irons for Casting Pipe, of which the following is a specification.

The object of my invention is to provide a collapsible socket-iron which sustains the cores in casting the bell ends of pipes.

Another object of my invention is to provide means for holding the collapsible socket-iron rigidly in position during the process of manufacture.

The features of my invention are more fully set forth in the description of the accompanying drawings, making a part of this specification, in which—

Figure 1 is a central vertical section of a mold, core, and pipe in position after casting. Fig. 2 is a bottom plan view of the socket-iron and key. Fig. 3 is a plan view of the socket-iron partially collapsed. Fig. 4 is an end elevation of the socket-iron and key at line *y y*, Fig. 2. Fig. 5 is a section on line *x x*, Fig. 4. Fig. 6 is a perspective view of the key. Fig. 7 is an end elevation of the socket-iron and key, showing the tie-bolt in section. Fig. 8 is an inside elevation of the socket-iron and tie-bolt.

A represents the base or chill plate of a mold.

B represents the detachable bell-section of the mold.

C represents the cast-iron shell or flask.

D represents the ordinary molding-sand which forms the outer periphery of the mold.

E represents the molding-sand which forms the inner periphery of the mold-cavity.

F represents the cast-iron core, against which the molding-sand E is sustained.

G represents a split socket-ring which sustains the core *a*, which forms the inside bell end of the pipe.

H represents an opening or split in the collapsible socket-iron.

I represents the core, which forms the face of the bell end of the pipe.

K represents the key, which is driven into the opening H between the ends of the split socket-iron, and *c* represents the head of said key, which bears against the lower inner face of the socket-iron *d*. The key K is driven between the ends of the socket-iron to give the desired expansion. This socket-iron is held rigidly in position against further expansion by means of a tie-bolt *e*, which rests in a recess formed in lugs *g* at the ends of the socket-iron. This bolt also keeps the ends of the socket-iron in proper alinement. Any other means for clamping the ends of the socket-iron from lateral and circumferential movement may be employed.

b represents a flange upon the lower edge of the outer face of the socket-iron, upon which the core *a* is supported.

After the socket-iron is cast it is removed from the mold and the key is driven between the split ends to expand the socket-iron somewhat beyond its normal diameter.

When the socket-iron is used in casting pipe, the key is inserted to expand the iron to the proper diameter and the tie-bolt clamped in position, the molds are formed, and the various parts placed in their respective positions the same as ordinarily practiced in casting pipe. After the pipe has been cast the key is driven out from between the ends of the split socket-iron, which then collapses, allowing the cast-iron to be readily detached without danger of damaging the face of the bell end of the pipe. This is a very important result, as in removing the socket-iron heretofore the ring, being solid, would frequently be held very strongly by the contraction of the pipe on cooling and have to be detached by forcibly using a wedge, which was liable to result in injury to the face of the pipe and a consequent defective casting. This great difficulty is entirely overcome by the use of my improvement, and it affords the additional advantages of being cheaper in construction, more durable in operation, and causing a considerable saving of time in the process of manufacture by reason of the ready detachability of the socket-iron from the pipe.

Having described my invention, I claim—

The combination with a core-bar of a

socket-ring removably placed on the lower end of said bar, said ring being of resilient material and split radially, and a key having parallel flat faces removably arranged between the adjacent ends of the split ring and serving to maintain it in an expanded position during casting, substantially as specified.

In testimony whereof I have hereunto set my hand.

GEORGE P. BASSETT, JR.

Witnesses:
W. R. WOOD,
OLIVER B. KAISER.