

(No Model.)

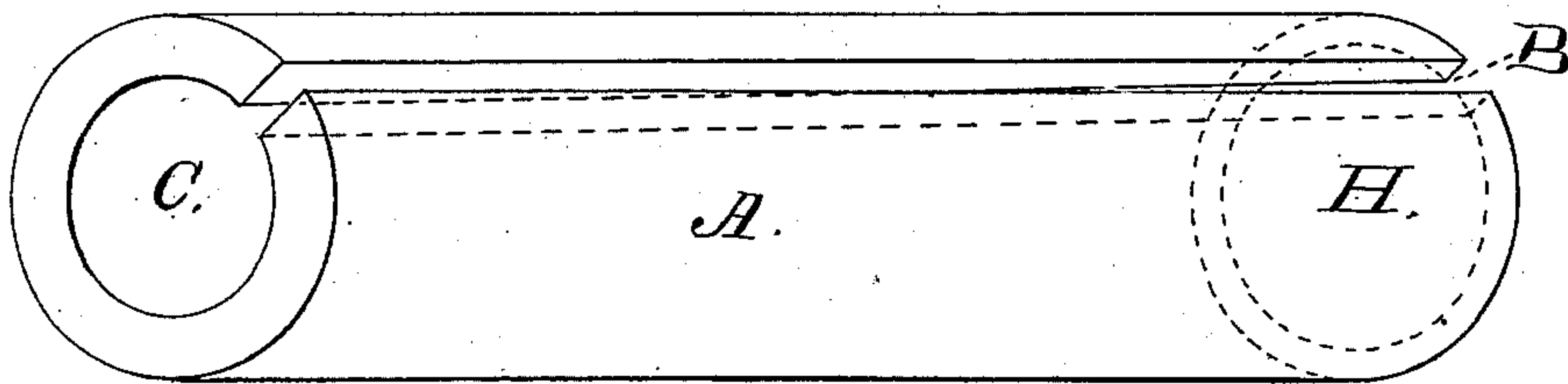
H. R. ALLEN.

CHILL.

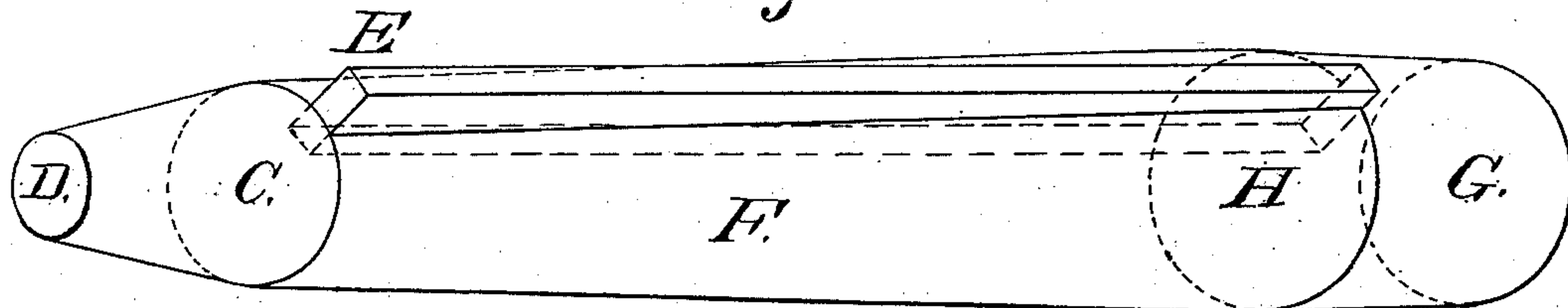
No. 285,779.

Patented Oct. 2, 1883.

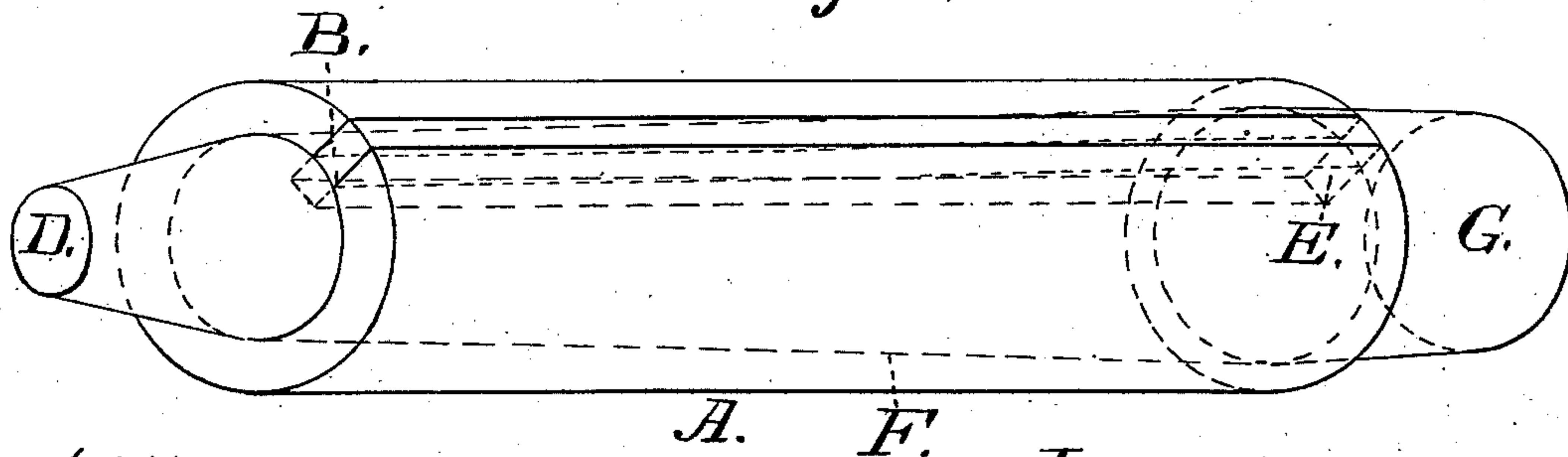
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Witnesses:*

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# UNITED STATES PATENT OFFICE.

HORACE R. ALLEN, OF INDIANAPOLIS, INDIANA.

## CHILL.

SPECIFICATION forming part of Letters Patent No. 285,779, dated October 2, 1883.

Application filed March 16, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, HORACE R. ALLEN, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented new and useful Improvements in Chills for Cast-Iron, of which the following is a specification.

My invention relates to chills for cast-iron, the object of which is to provide means to cast a smooth hole with parallel sides in various parts of machinery—as the hubs of pulleys, gear-wheels, and other parts where a smooth parallel hole having chilled or hardened sides is required. I attain this object by means of the mechanism in the accompanying drawings, in which—

Figure 1 is a perspective view of sleeve having a taper hole through the middle and a slot cut through one side. Fig. 2 is a perspective view of taper plug with spline set in one side. Fig. 3 is a perspective view of the chill with all the parts in position for use.

Similar letters refer to similar parts throughout the several views.

The sleeve A, Fig. 1, has a taper hole, C, through the middle, and a slot, B, cut through one side to receive the spline E. The plug F, Fig. 2, is of same taper from C to H as the hole C in sleeve, Fig. 1. E is a spline set on the side of plug F, being of such size as will slide into the groove B, Fig. 1, filling it en-

tirely. The end H G is slightly tapered toward end G, to fit easily into core-print on pattern. The end D C is also tapered, but to a greater degree, in order that the cope or top part of the mold will hold in an upright position more easily.

Fig. 3 shows the sleeve A and plug F in position when, after receiving a liberal coating of plumbago or oil, ready to be placed in the mold. After the metal has been poured into the mold and the casting has become cold, the chill can be easily removed by tapping on small end D of plug F. On the removal of the plug the sleeve will spring in and allow the removal of the sleeve.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A metallic sleeve having the outsides parallel, a tapering bore, and a longitudinal slot, in combination with a metallic pin or mandrel of suitable taper, having a spline to fit the slot in the sleeve, and suitable projecting ends to fit in the core-prints in the molding-flasks, substantially as and for the purposes set forth and described.

HORACE R. ALLEN.

Witnesses:

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