

P. H. MOORE.

CUP AND CONE FEEDERS FOR BLAST FURNACES.

No. 182,216.

Patented Sept. 12, 1876.

Fig. 1.

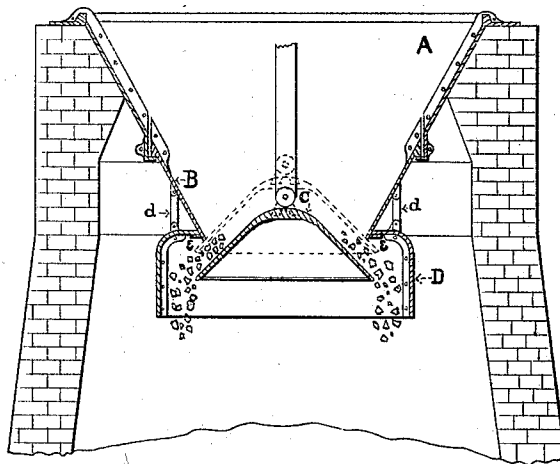
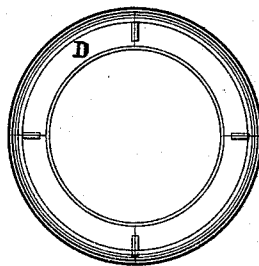


Fig. 2.



WITNESSES.

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PHILIP H. MOORE, OF WHEELING, WEST VIRGINIA.

IMPROVEMENT IN CUP AND CONE FEEDERS FOR BLAST-FURNACES.

Specification forming part of Letters Patent No. **182,216**, dated September 12, 1876; application filed April 3, 1876.

To all whom it may concern:

Be it known that I, PHILIP H. MOORE, of Wheeling, in the county of Ohio and State of West Virginia, have invented a new and useful improvement in the apparatus used on the top of blast-furnace stacks for feeding stock in the furnace, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 is a vertical section of the top of an ordinary furnace for smelting ores.

A is the hopper in which the stock is placed to feed the furnace. B is an extension of the hopper, called the mouth-piece. C is the bottom of the hopper, called a bell, which is lowered a suitable distance when feeding the stock to the furnace. D is an apron or fender, attached to the mouth-piece B, to prevent the stock from striking the walls of the furnace.

Fig. 2 is a top view of the apron D.

The object of my invention is to protect the walls of the furnace from injury by the stock as it runs down the incline of the bell C, striking the side of the furnace and dislocating the brick of which the furnace is built.

I accomplish this object by attaching to the hopper or mouth-piece B an apron or fender, D, constructed of suitable material, and extending below the bell C a sufficient distance to break the force of the stock as it runs off the surface of the bell and cause it to fall plumb in the furnace. The apron D is secured, by straps *d d* and flange *e*, to the mouth-piece B, in such a manner as to be readily removed when desired.

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

A blast-furnace feeder consisting of the hopper A, mouth-piece B, bell C, flanged fender or apron D, secured to the mouth-piece B by strips *d d*, the whole constructed, combined, and arranged to operate substantially as and for the purpose specified.

PHILIP H. MOORE.

Witnesses:

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