GEORGE BUCHANAN.

Improvement in Grate Fenders.

No. 120,571. Patented Nov. 7, 1871.

Fig. 2.

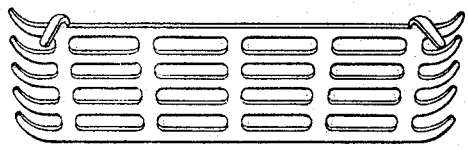
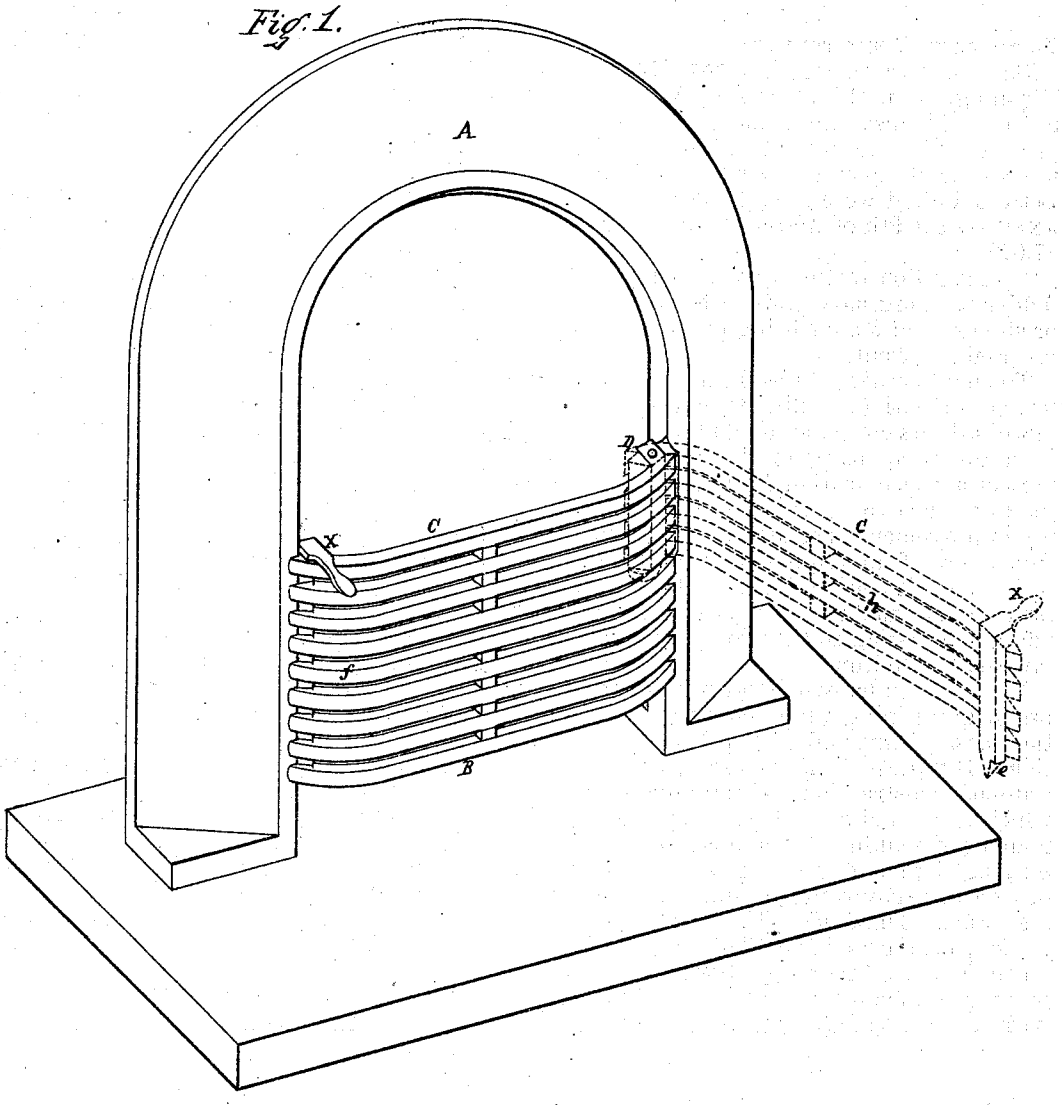


Fig. 1.



Witnesses.

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UNITED STATES PATENT OFFICE.

GEORGE BUCHANAN, OF WASHINGTON, PENNSYLVANIA.

IMPROVEMENT IN GRATE-FENDERS.

Specification forming part of Letters Patent No. 120,571, dated November 7, 1871.

To all whom it may concern:

Be it known that I, GEORGE BUCHANAN, of Washington, in the county of Washington and State of Pennsylvania, have invented an Improvement in Grate-Fenders, the same being an improvement upon the grate-fenders for which Letters Patent were granted to the said BUCHANAN on the 9th of March, 1869, and numbered 87,629.

My invention relates to the combination of a fender with ordinary grate of fire-places, ranges, or stoves, said fender being pivoted to the grate, its jamb, or front.

To enable others skilled in the art to make and use my invention, I will now proceed to describe more fully its construction and operation.

In the accompanying drawing which forms part of my specification, Figure 1 is a perspective view of a fire front and a grate provided with my improvement in fender. Fig. 2 represents a front view of an improved form of the fender, which form is used to facilitate the molding and prevent the cracking of the casting, and also to adapt the casting to the process of converting it into malleable iron.

In the accompanying drawing, A represents a fire or grate front, which may be made in any of the known forms and of any desired ornamentation. B represents a fire-grate, which is of the ordinary construction. C represents the fender, which is pivoted at the point marked D. The manner of making the pivoted joint or mode of hinging the fender to the grate B, or to its jamb or front, I leave to the judgment and skill of the mechanic. The fender C is provided with a projection, as indicated at *e*. This projection catches on the inside of the upper bar *f* of the grate B, holding the fender in a safe and fixed position with relation to the grate. X represents a handle for manipulating the fender. The fender C may swing out, as shown by the dotted lines *h*, when such position may be desired, which will be the case when the user desires to kindle a fire, and for other purposes. The most desirable form for the openings between the bars is shown in Fig. 2. This form of opening will be of great advantage in the process of molding, which will be apparent to the skillful molder, and will also be of very great advantage to the casting, for it will prevent it from cracking in the process of cooling, and will add much to the strength of the fender. The openings between the bars in the fender represented in Fig. 2 are the best form of openings for casting the fender of metal, which is subsequently to be converted into malleable iron.

The object of my invention is to prevent coals of fire from falling out or rolling from the filled grate to the floor of the house, and also to prevent children from falling into the fire, and to guard against many of the accidents which occur by fire.

The advantage of a fender constructed as described and used in combination with a grate in the manner herein set forth will be appreciated by all who use wood or bituminous coal, which are the principal, almost the only, articles of fuel used in the western part of our country.

Having thus described the nature, object, and advantage of my improvement, what I claim as of my invention is—

The fender C, constructed substantially as hereinbefore described, and pivoted with relation to the grate B, in the manner set forth.

GEORGE BUCHANAN.

Witnesses:

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