

(No Model.)

J. SHEERAN.

ATTACHMENT FOR BASKET GRATES.

No. 355,565.

Patented Jan. 4, 1887.

Fig. 1.

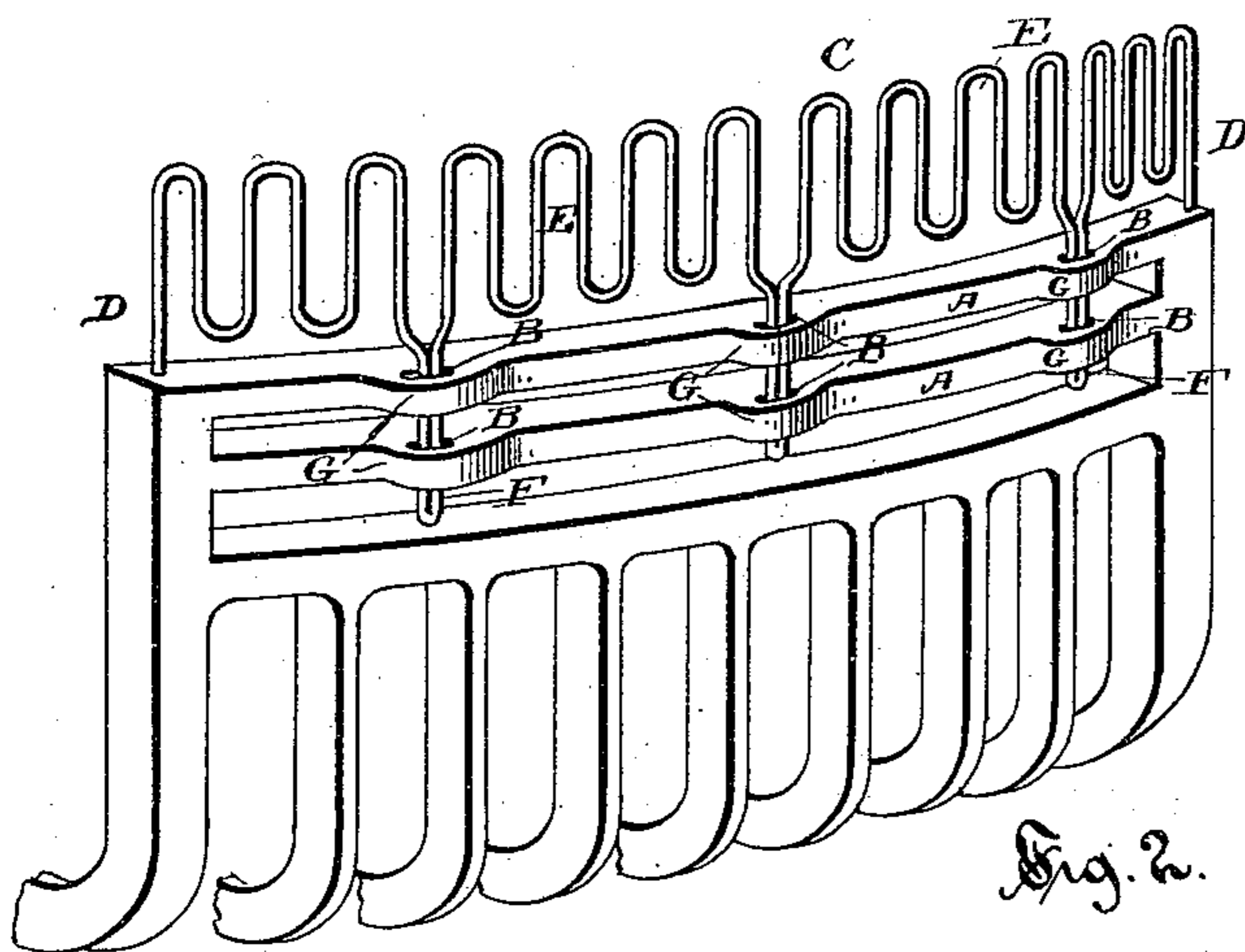


Fig. 2.

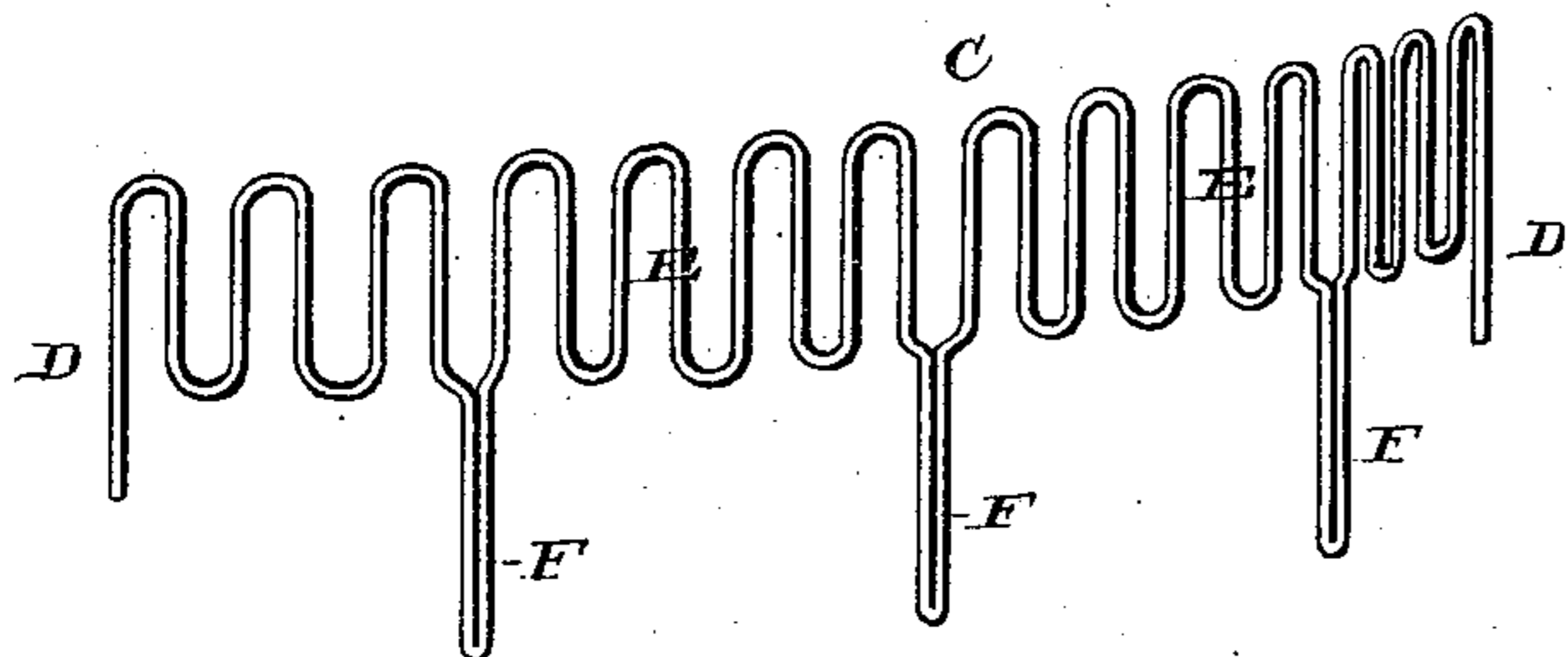


Fig. 4.

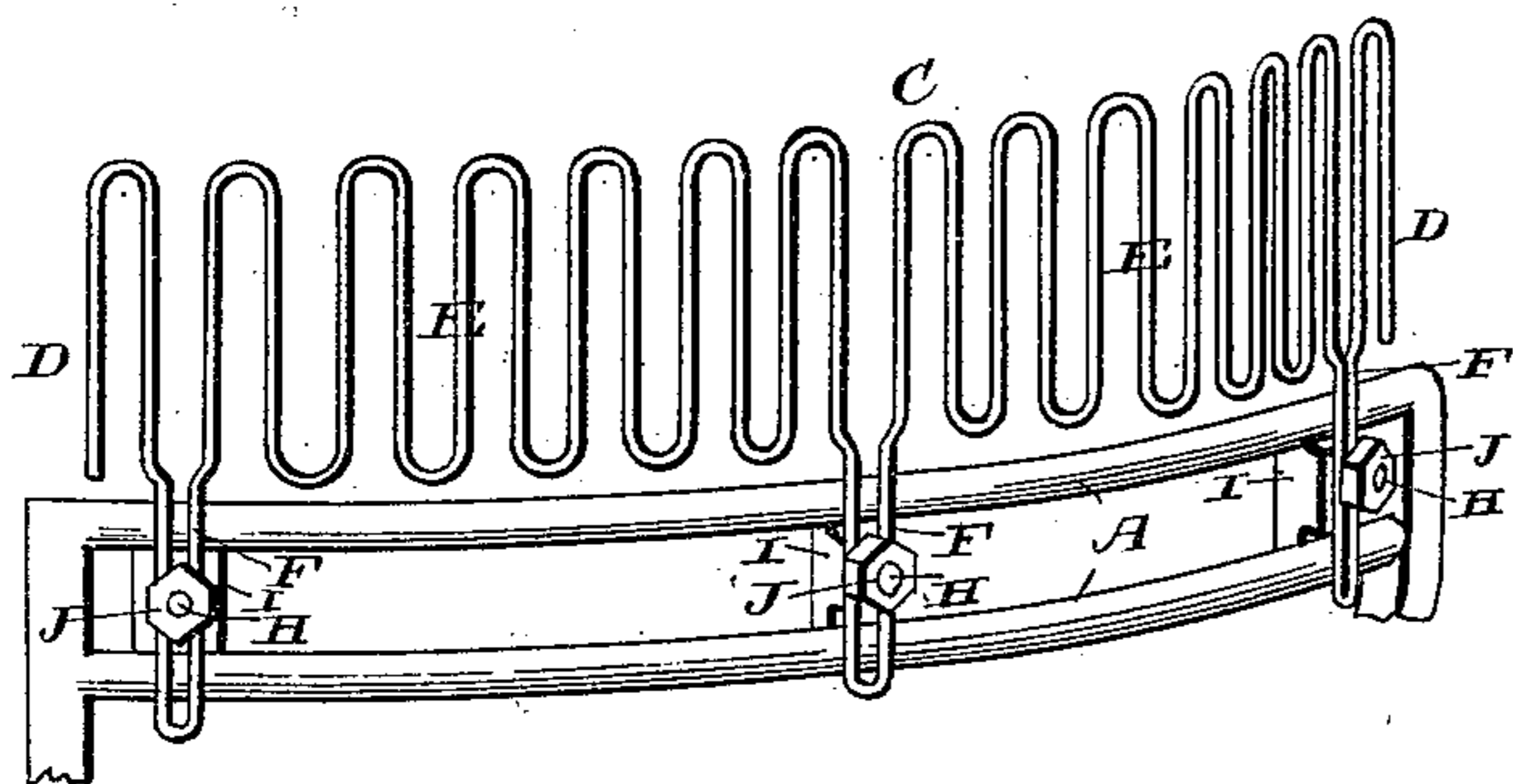


Fig. 3.

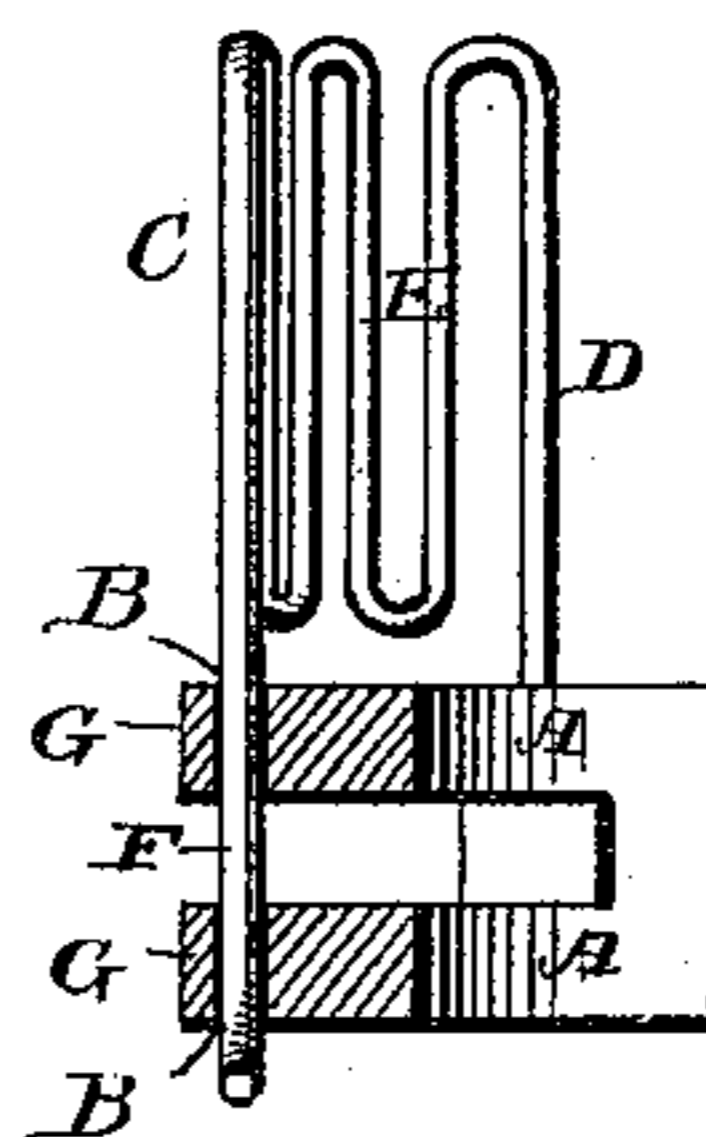
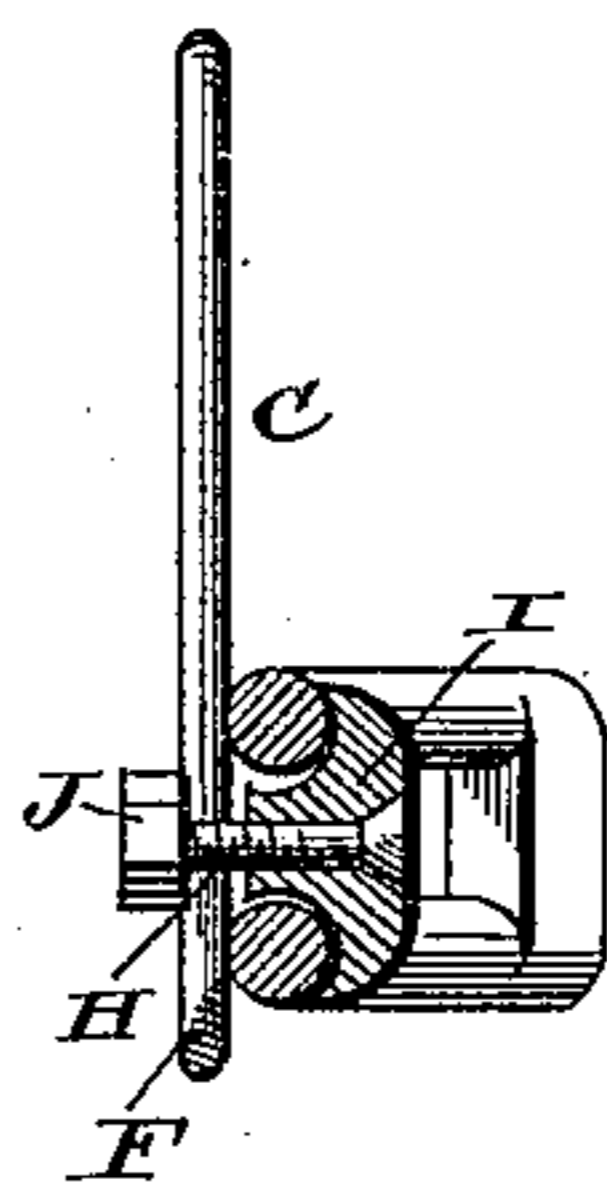


Fig. 5.



WITNESSES

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# UNITED STATES PATENT OFFICE.

JOHN SHEERAN, OF NEW LEXINGTON, OHIO.

## ATTACHMENT FOR BASKET-GRATES.

SPECIFICATION forming part of Letters Patent No. 355,565, dated January 4, 1887.

Application filed January 21, 1886. Serial No. 189,276. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN SHEERAN, a citizen of the United States, and a resident of New Lexington, in the county of Perry and State of Ohio, have invented certain new and useful Improvements in Attachments to Basket-Grates; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of a grate provided with my improvement. Fig. 2 is a similar view of the additional grate forming my improvement. Fig. 3 is a vertical cross-sectional view of the grate and additional grate. Fig. 4 is a perspective view of a modified form of the attachment, and Fig. 5 is a vertical cross-section of the same.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to attachments for basket-grates; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In using basket-grates for burning bituminous coal it is necessary to add an additional grate above the usual grate for the purpose of increasing the capacity of the grate when it is desired to retain a fire in the grate for a space of time without the necessity of replenishing the supply of coal, and for this purpose additional grates of wire or thin metallic rods have been placed upon the grate-bars, having wire legs, which straddle the upper grate-bar and bear against the inner and outer sides of the said bars. This form of additional grate has, however, been found to be rendered useless in a short space of time, on account of the portions of the wire legs which fit upon the inner sides of the grate-bars burning away and allowing the additional grate to fall off, often causing portions of the fire to fall out in the room, and thus doing more or less damage, and for the purpose of avoiding this drawback I construct the grate and the additional grate in the manner which I shall proceed to describe.

In the accompanying drawings, the letters

A indicate the horizontal grate-bars of the grate, and these bars are formed with vertical registering perforations B, which form sockets.

The additional grate C consists of a piece of wire or thin metallic rod, which has its ends D D projecting downward, and which is formed with a number of parallel loops, E, having at intervals loops which extend with their lower doubled ends below the lower ends of the other loops, forming legs F, the said projecting ends of the loops being pressed toward each other. These legs of the additional wire grate and the ends of the wire forming the grate are inserted into the sockets formed by the perforations in the grate-bars, and these perforations are preferably formed in enlargements G upon the forward sides of the bars, so that the bars have the same thickness at the perforated places as at other points, preventing the perforations from weakening the grate-bars.

The legs and downwardly-bent ends of the additional grate may be removed from the sockets in the grate for the purpose of renewing the additional grate or for the purpose of repairing it, or for any other purpose, and it will be seen that no portion of the additional grate will be in direct contact with the fire, so that it will not be liable to drop from its place upon the grate-bars if any portions should be burned.

For grates which have not their bars cast with the registering perforations, the legs may be placed upon the outer sides of the grate-bars, and have bolts H passing through them, the said bolts projecting from metallic cross-heads I, which bear with their ends against the inner sides of two grate-bars, and having nuts J upon their outer ends bearing against the outer sides of the looped legs. It will be seen that in this form, which is illustrated in Figs. 4 and 5 of the drawings, the legs of the grate will bear against the outer sides of the grate-bars, and that the cross-heads, which are of a sufficient thickness to bear the exposure to the fire, will face the fire in the grate; and the grate may be removed from the grate-bars by unscrewing the nuts of the bolts, when the looped legs of the additional grate may be removed from the nutted bolts and a new additional grate put in its place in case that the additional grate is worn out or burned up, or the grate may be repaired, or any other ob-

ject attained for the purpose of which the additional grate may be removed.

5 The additional grate is very simple of construction, and will at the same time be a perfect barrier for any lumps of coal dropping off from the fire, or any object coming in direct contact with the fire from the outside.

10 Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

15 1. An additional grate for fire-place grates, consisting of a wire or rod formed into a series of vertical parallel straight loops, having at intervals a single loop prolonged below the remaining ones of the series, said prolongations being constricted and retained in the same plane as the other parts of said grate, substantially as shown and described.

20 2. In combination with a basket-grate having the horizontal grate-bars formed with sockets or registering perforations, a grate having downwardly-projecting legs fitting in the said sockets, as and for the purpose shown and set forth.

25 3. In combination with a basket-grate having the horizontal grate-bars formed with out-

wardly-bulged portions registering with each other, and having registering perforations in the outer portions of the said bulged portions, an additional grate having downwardly-projecting legs fitting into the said perforations, as and for the purpose shown and set forth. 30

4. In combination with a basket-grate having the horizontal grate-bars formed with outwardly-bulged portions registering with each other, and having registering perforations in the outer portions of the said bulged parts, an additional grate formed of a piece of wire bent to form parallel vertical loops, having the ends of the wire bent downward and fitting in the outer perforations of the grate, and having loops at intervals extended below the lower ends of the other loops and fitting into the perforations in the grate-bars, as and for the purpose shown and set forth. 35 40 45

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

JOHN SHEERAN.

Witnesses:

THOMAS PARK,  
RAYMOND FORQUER.