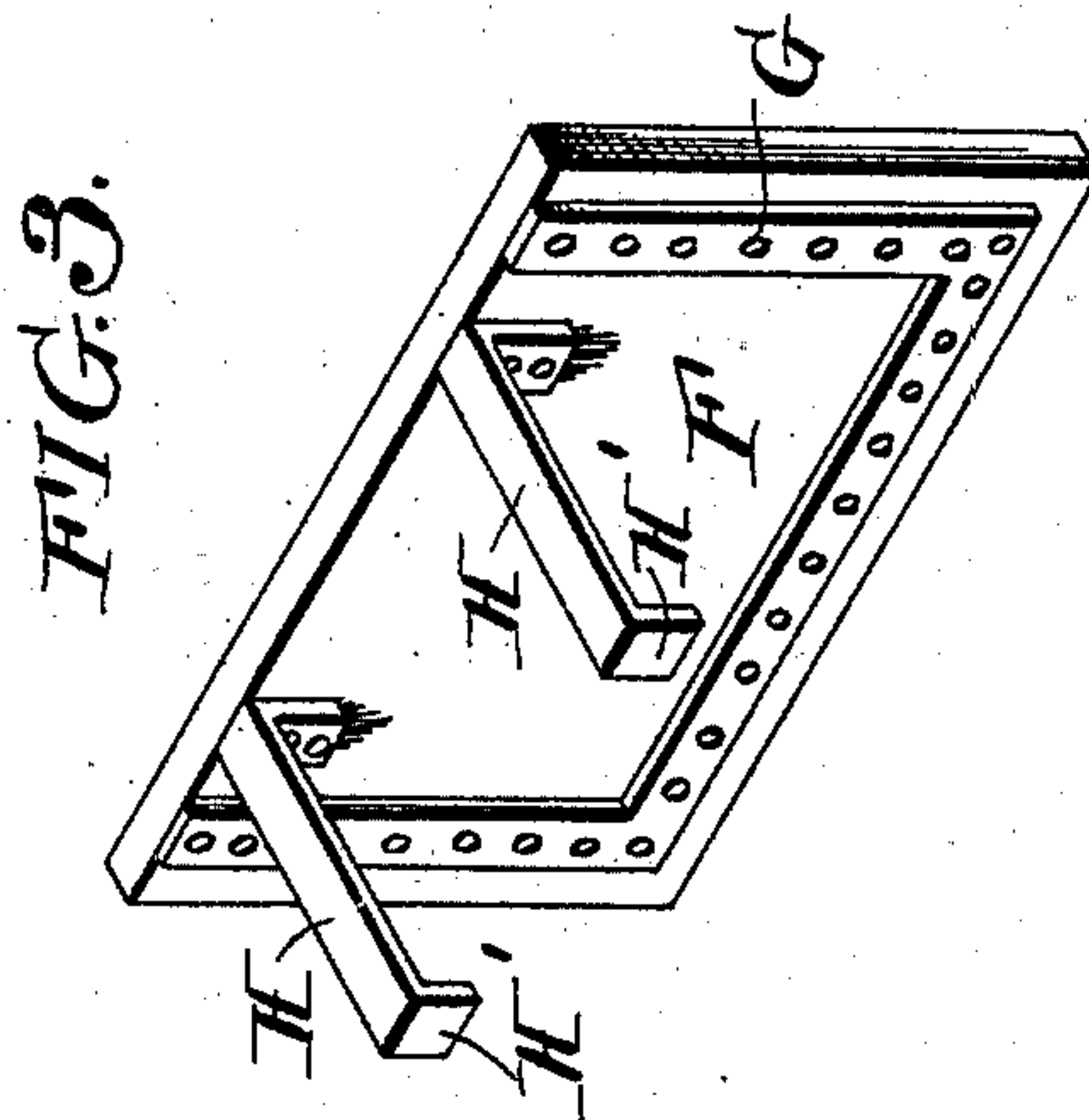
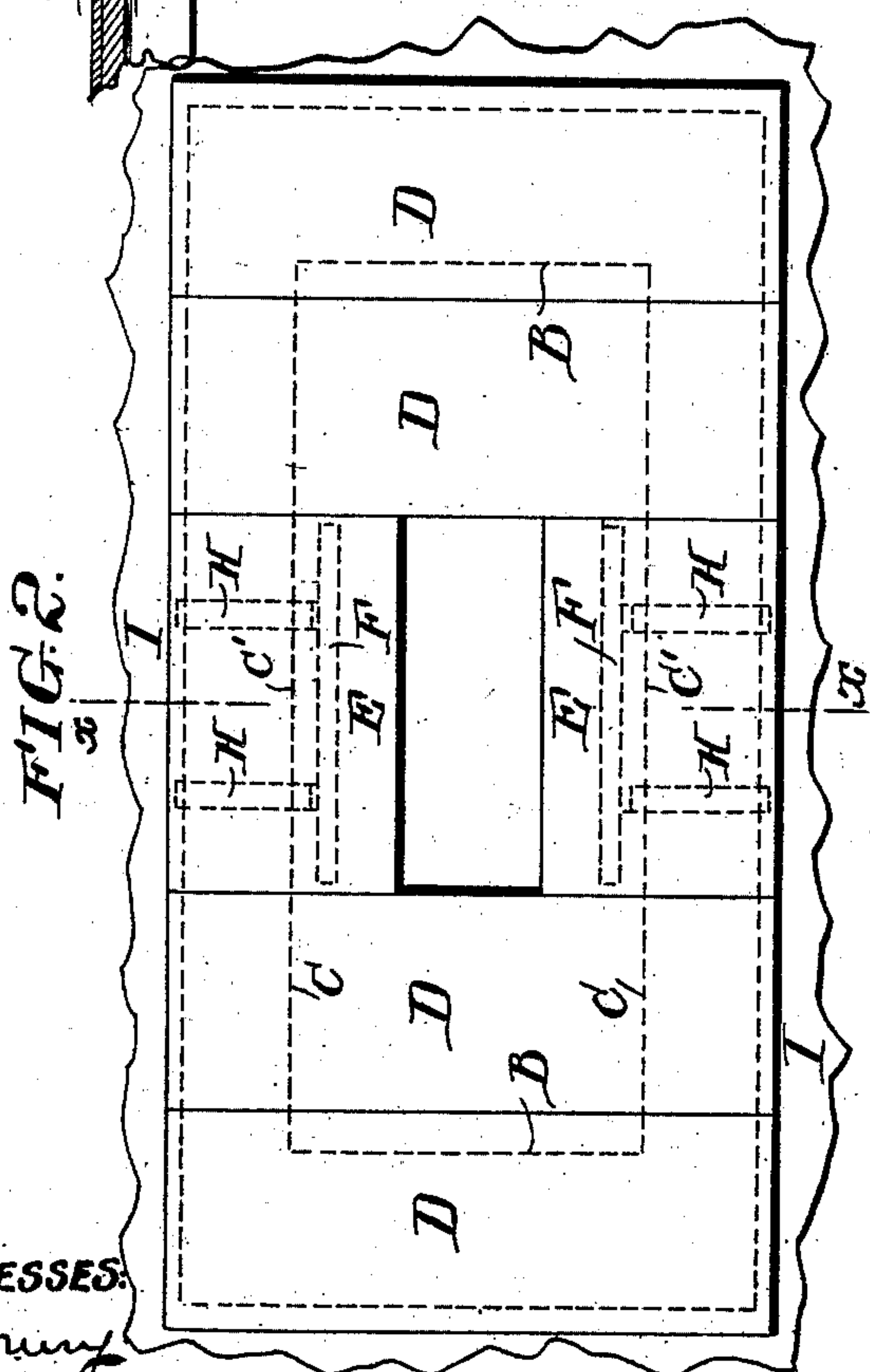
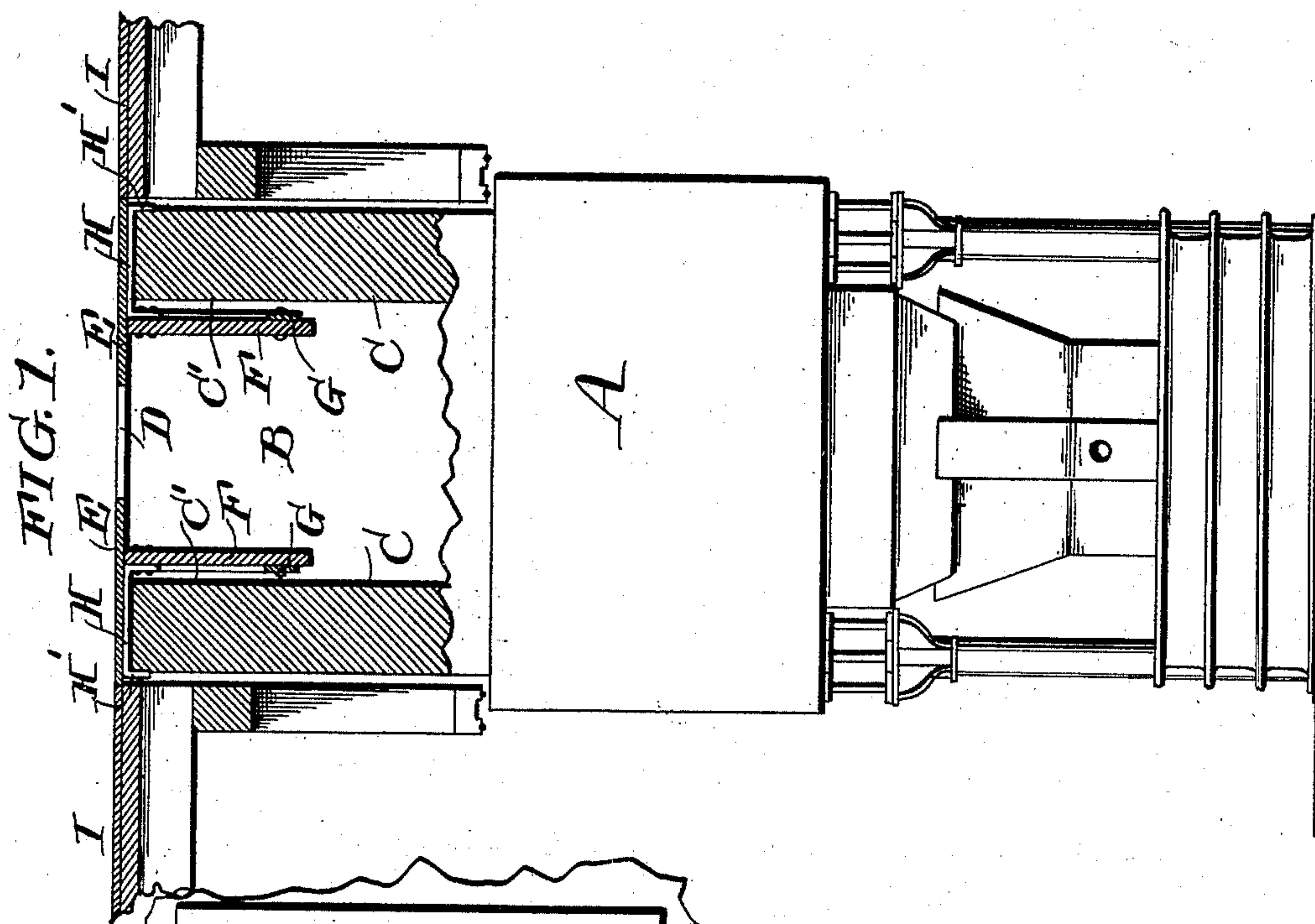


(No Model.)

D. SHEEDY & M. W. ILES.
BLAST FURNACE.

No. 505,538.

Patented Sept. 26, 1893.



WITNESSES:

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UNITED STATES PATENT OFFICE.

DENNIS SHEEDY AND MALVERN W. ILES, OF DENVER, COLORADO.

BLAST-FURNACE.

SPECIFICATION forming part of Letters Patent No. 505,538, dated September 26, 1893.

Application filed October 8, 1892. Serial No. 448,198. (No model.)

To all whom it may concern:

Be it known that we, DENNIS SHEEDY and MALVERN W. ILES, both of Denver, county of Arapahoe, State of Colorado, have invented
5 a certain new and useful Improvement in Blast-Furnaces, of which the following is a true and exact description, reference being had to the accompanying drawings, forming part thereof.

10 Our invention relates to blast furnaces and has for its object to protect the walls of such furnaces from the destructive attrition of the charge as it is dumped or shoveled by the operators into the feed door. In the so-called
15 open top furnaces this wear and tear is particularly noticeable and destructive, and our invention is particularly, though not exclusively, adapted for use with such furnaces.

Our invention consists in securing iron
20 plates to the inside top walls of the furnace by means of hooks which extend out from the upper edge of the plates and extend over the top of the furnace wall, whereby the plate may be easily removed and replaced; in such
25 a position that the ore when dumped into the feed door will strike against them instead of the masonry walls; preferably we make these plates of cast iron and strengthen them by riveting wrought iron bands along their
30 edges.

Reference is now had to the drawings which illustrate our invention, and in which—

Figure 1 is an elevation of an open top furnace provided with our improvement, the upper part being shown in section on the line
35 $x-x$ of Fig. 2. Fig. 2 is a plan view of the furnace; and Fig. 3 a perspective view of one of the protective plates.

40 A indicates the furnace; C, C, its side walls; and B, B its front and back walls; C' indicating that part of the walls C which is sub-

jected to wear from the ore being charged into the furnace.

D D E E, &c., indicate the plates forming the floor over the top of the furnace, the cen- 45 tral opening between said plates constituting the feed door; F F are cast iron plates of a size sufficient to cover the portions C' of the walls exposed to wear.

G is a strip or band of wrought iron riv- 50 eted to the plates F; and H H wrought iron bars bent at their ends H' as shown to form hooks which will extend over and grasp the walls C of the furnace. The plates are hung in position as shown in Figs. 1 and 2, the floor 55 plates E then placed over them and the furnace run until for any reason it is desired to remove the plates F when they are readily lifted out and as readily replaced.

Having now described our invention, what 60 we claim as new, and desire to secure by Letters Patent, is—

1. In combination with a blast furnace having masonry walls, one or more iron plates F having hooks H secured to them, said hooks 55 being adapted to extend over the top of the walls and sustain the plates F on the inside thereof, substantially as and for the purpose specified.

2. In combination with a blast furnace hav- 70 ing masonry walls, one or more cast iron plates F having wrought iron bands G riveted to them and having hooks H secured to them, said hooks being adapted to extend over the top of the walls and sustain the plates F on 75 the inside thereof, substantially as and for the purpose specified.

DENNIS SHEEDY.
MALVERN W. ILES.

Witnesses:

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