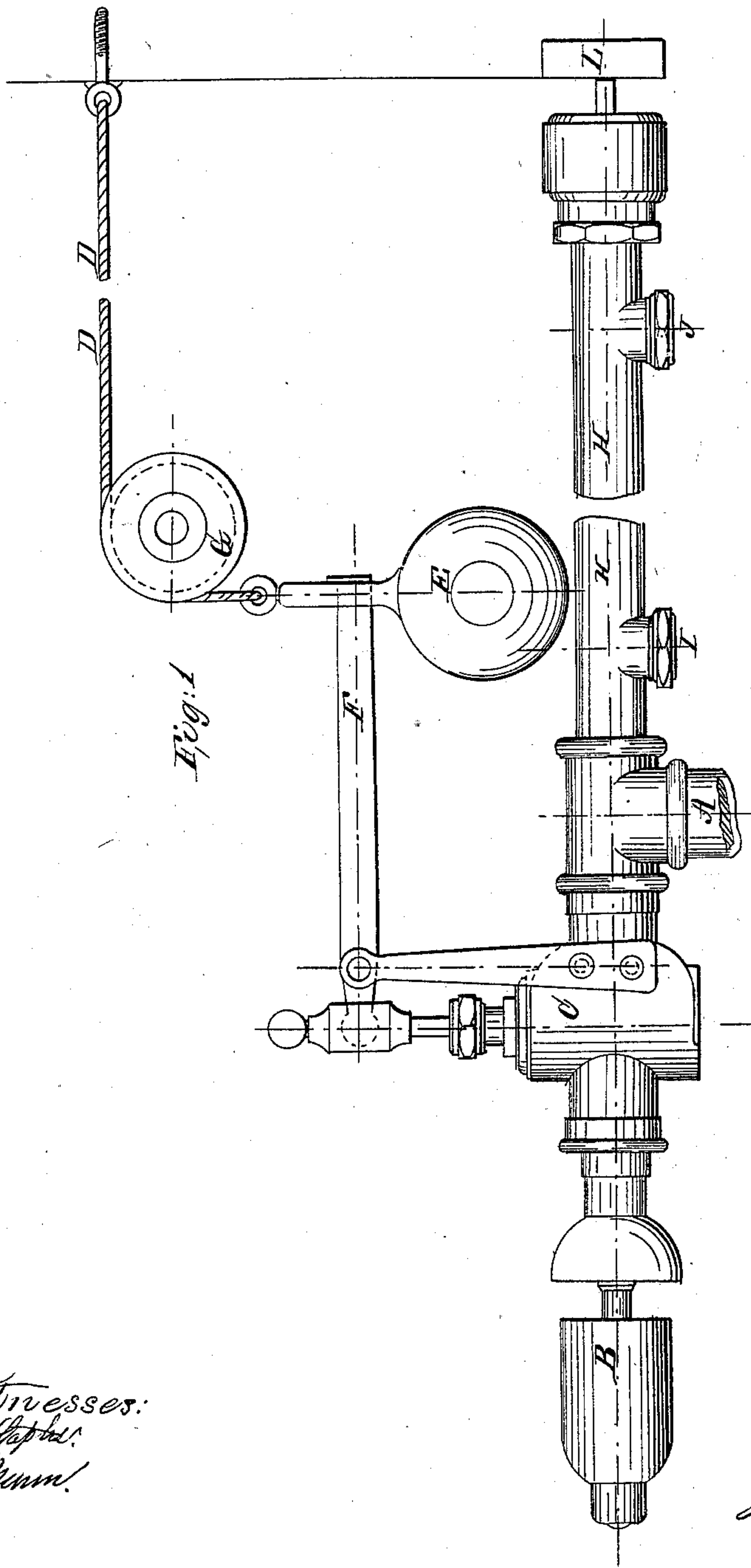


J. Souther,

Steam Safety Valve.

N^o 79,021.

Patented June 16, 1868.



Witnesses:
Chas. C. Stephens
H. B. Mann

Inventor:
John Souther

United States Patent Office.

JOHN SOUTHER, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 79,021, dated June 16, 1868.

IMPROVEMENT IN STEAM FIRE-EXTINGUISHERS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN SOUTHER, of the city of Boston, county of Suffolk, and State of Massachusetts, have invented a new and useful improvement, a machine, or a combination of machinery, for the purpose of more promptly giving a fire-alarm, and extinguishing a fire. I do hereby declare that the following description, specification, and accompanying drawings, is a true description of the construction and operation of the same.

The object of my invention is, when a building or vessel is on fire, to use the fire as the agent to give the alarm by a steam or gas-whistle, and also put out the fire by steam, gas, or water, making it self-operating.

Drawing A, Figure 1, is a side elevation.

Letter A, on drawing, represents a steam or gas-pipe broken off, which pipe leads to or from the steam-boiler; B is a steam-whistle; C is a cock or valve; D is a line or any combustible attachment leading across a room or vessel, and secured there, so as to raise the weight E off the lever F, by passing over pulley G.

When the fire comes in contact with this attachment to sever it, it drops weight E and lever F, and opens valve C, and lets steam in the room, or gas under pressure, coming in contact of whistle, giving an alarm, and putting out the fire by the steam or acid gas. Water may be let on the fire by the same motion.

H H is a gas or steam-pipe broken off, which pipe leads across the room or vessel, for the purpose of letting on steam in different places in the building or vessel, by the heat of the fire melting a metallic fusible plug, I, which melts at a low degree of heat, and, when melted, lets steam through the apartment it covers; also by igniting a combustible fuse in opening of pipe marked J, and by the expansion of the pipe by the heat of the fire, thereby forcing valve-stem K against block L, opening the valve inwardly, letting out steam, all for the purpose above named.

I claim—

1. A self-operating fire-alarm and extinguisher, consisting of the pipes A and H, whistle B, valve C, lever F, and weight E, or their equivalents, all constructed and arranged to operate substantially as herein described.

2. The pipes A and H, fusible plugs I and J, and valve-stem K, constructed and arranged to operate substantially as herein described and for the purpose set forth.

JOHN SOUTHER.

Witnesses:

E. H. BARTON,

C. H. SOUTHER.