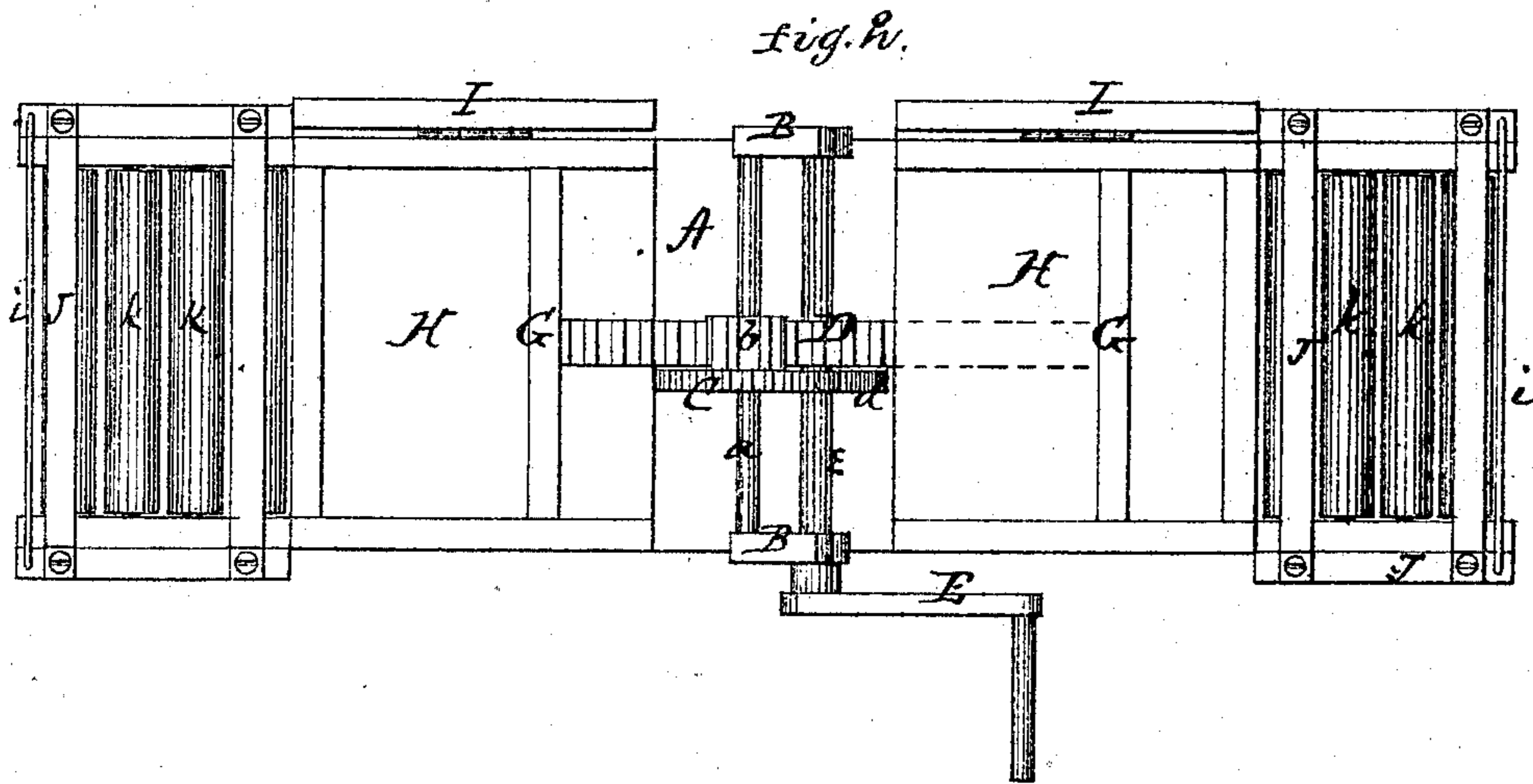
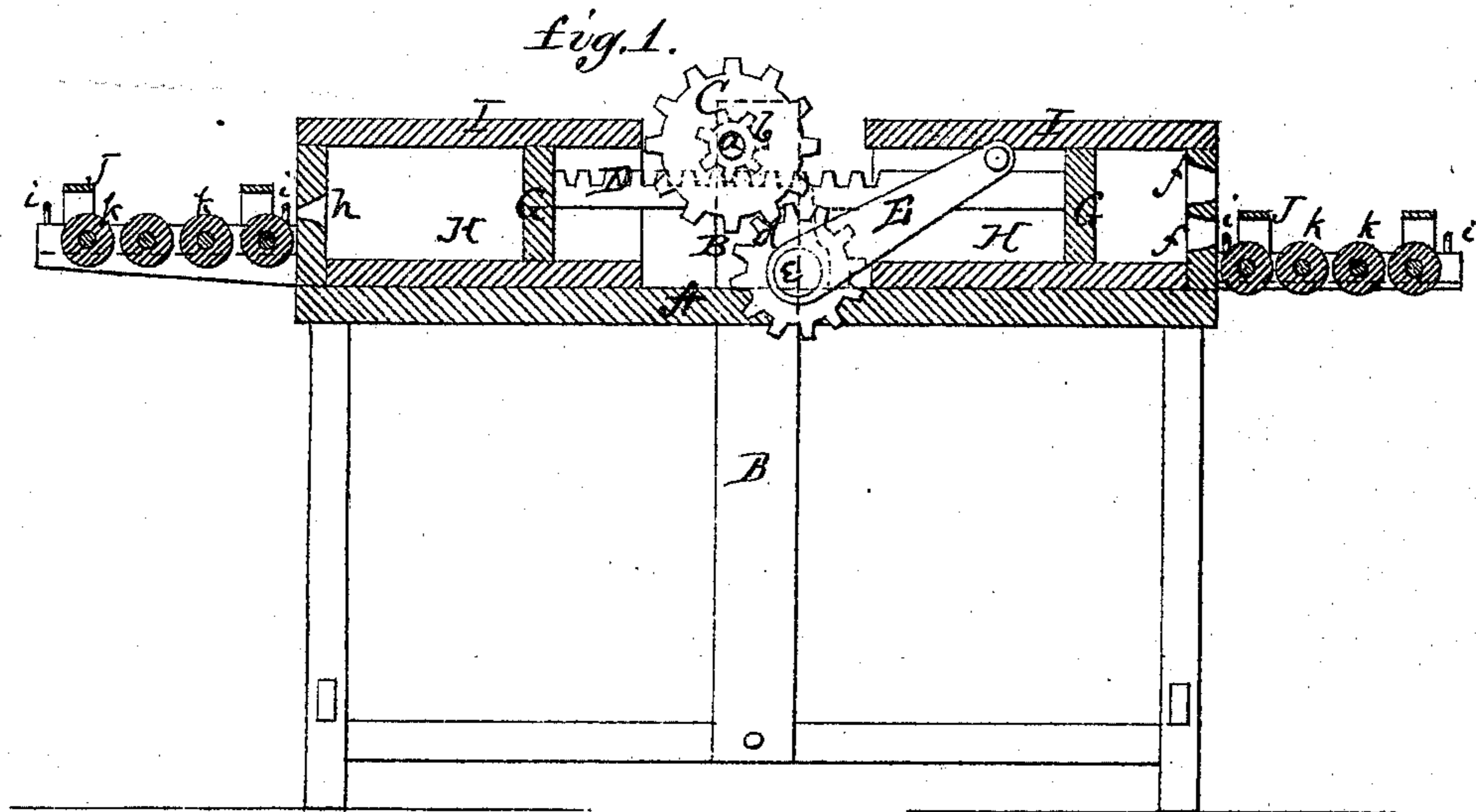


John B. Hughes' Tile Machine.

116448

PATENTED JUN 27 1871



Witnesses
 John A. Ellis.
 J. V. White.

Inventor.
 John B. Hughes
 Per,
 J. H. Alexander
 Atty.

UNITED STATES PATENT OFFICE.

JOHN B. HUGHES, OF TERRE HAUTE, INDIANA.

IMPROVEMENT IN TILE-MACHINES.

Specification forming part of Letters Patent No. 116,448, dated June 27, 1871.

To all whom it may concern:

Be it known that I, JOHN B. HUGHES, of Terre Haute, in the county of Vigo and State of Indiana, have invented certain new and useful Improvements in Tile-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a machine for making tile for roofing, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a longitudinal vertical section, and Fig. 2 is a plan view of my machine.

A represents the bed of my machine, supported upon suitable frame-work. On each side, in the center of the bed A, is a standard, B, in which standards a shaft, *a*, has its bearings, said shaft being provided with a pinion, *b*, and cog-wheel C. The cog-wheel C gears with a pinion, *d*, on a shaft, *e*, turned by a crank, E, while the pinion *b* gears with and operates a rack-bar, D, having a follower or plunger, G, at each end. The followers G G move in boxes H H placed on the bed-piece A, one on each side of the center, and said boxes are provided with hinged lids I I. In the outer end of one of the boxes H H are two slots, *ff*, the inner edges of which are beveled, so that the follower will readily force the clay

through the same, forming two sheets or plates of suitable width and thickness, to be formed in another machine (for which a separate application is made) into suitable shape for roofing. The outer end of the other box has two semicircular or nearly semicircular openings, *h h*, the inner edges of which are also beveled to form the caps described in my application for patent on roofing now pending. The boxes H H have arms extending beyond their outer ends, in which rollers *k k* are placed, upon which rollers the tile slides or moves as it is forced out by the plungers. The crank E is turned first one way and then the other, and when one plunger or follower presses the clay out of one box the other is filled. At each end of the machine is hinged a frame, J, with rods *i i*, which is brought down upon the tile, the rods cutting it off the proper length.

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

The arrangement, in the tile-machine herein described, of the bed-piece A, boxes H H with different-shaped openings *ff* and flat opening *h*, reciprocating plungers G, rack-bar D, rollers *k k*, frames J J, and rods *i i*, all constructed and operating substantially as and for the purposes herein set forth.

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

JOHN B. HUGHES.

Witnesses:

T. H. ALEXANDER,
J. V. WHITE.