

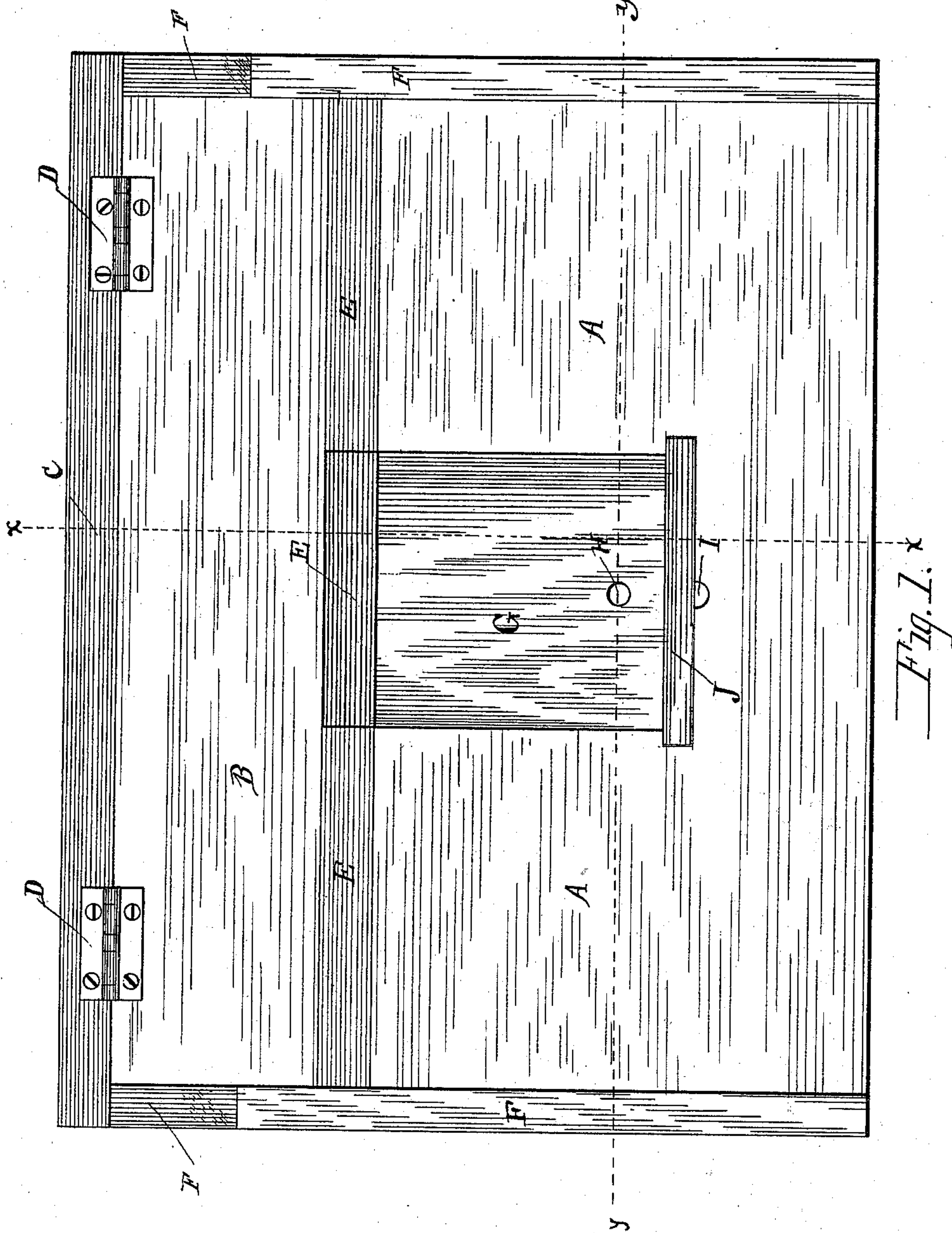
(No Model.)

3 Sheets—Sheet 1.

G. W. GOAD, Sr.  
GRAVEL FOUNTAIN SPRING.

No. 385,349.

Patented July 3, 1888.



Witnesses

R. A. Balderson.  
F. C. Sullivan.

Inventor

George W. Goad, Sr.  
By L. Bingham.  
His Attorney

(No Model.)

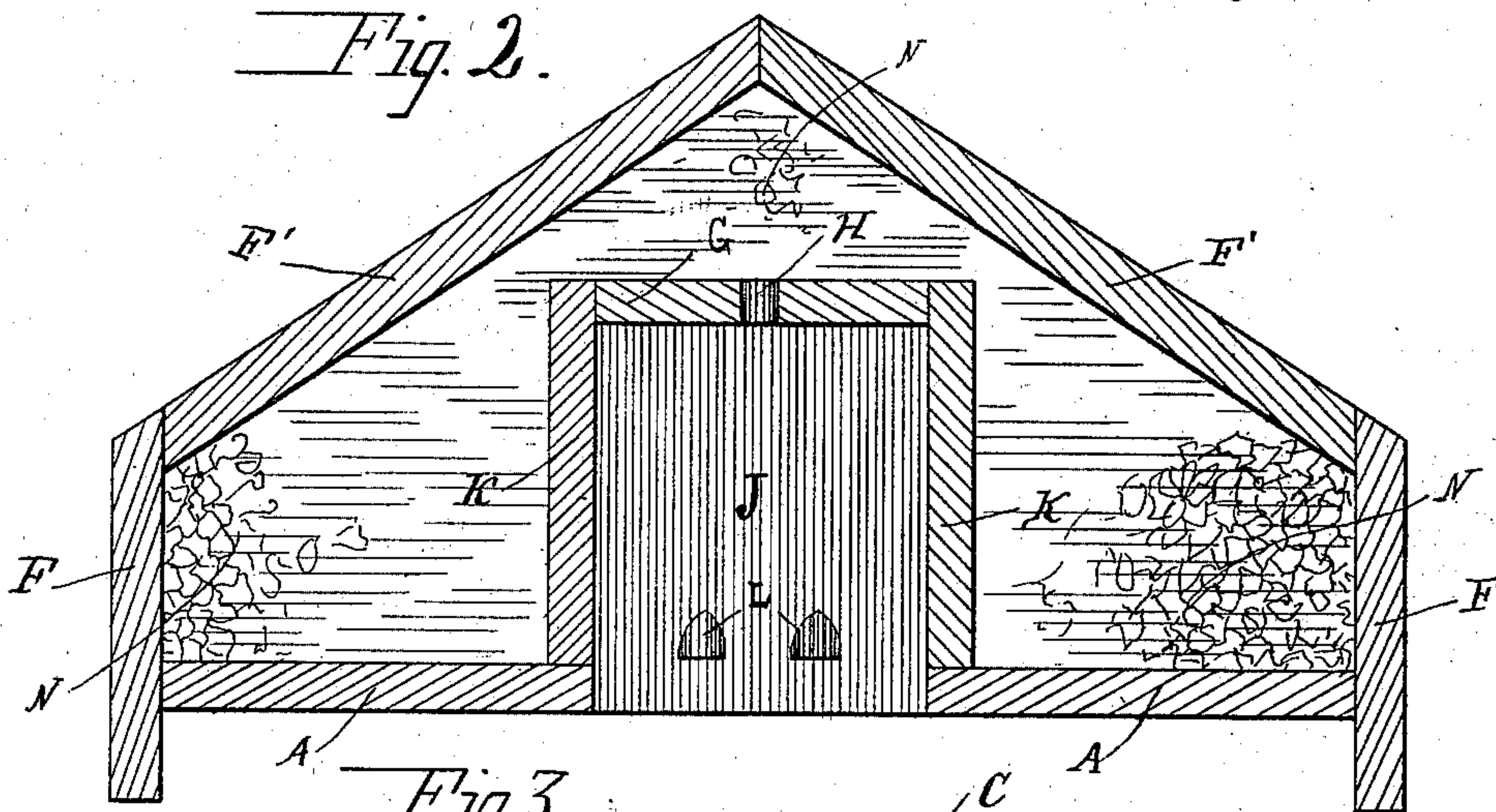
3 Sheets—Sheet 2.

G. W. GOAD, Sr.  
GRAVEL FOUNTAIN SPRING.

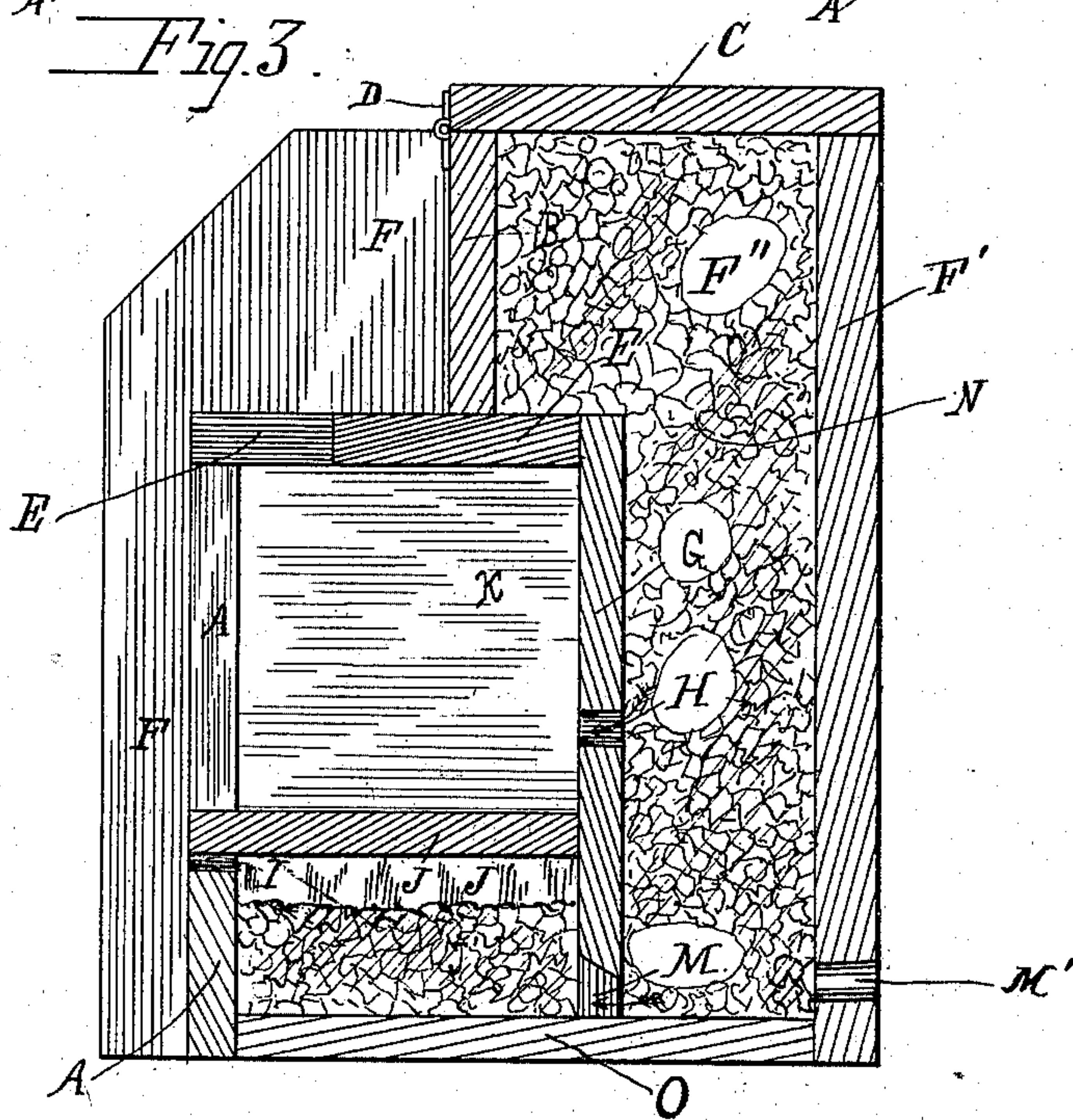
No. 385,349.

Patented July 3, 1888.

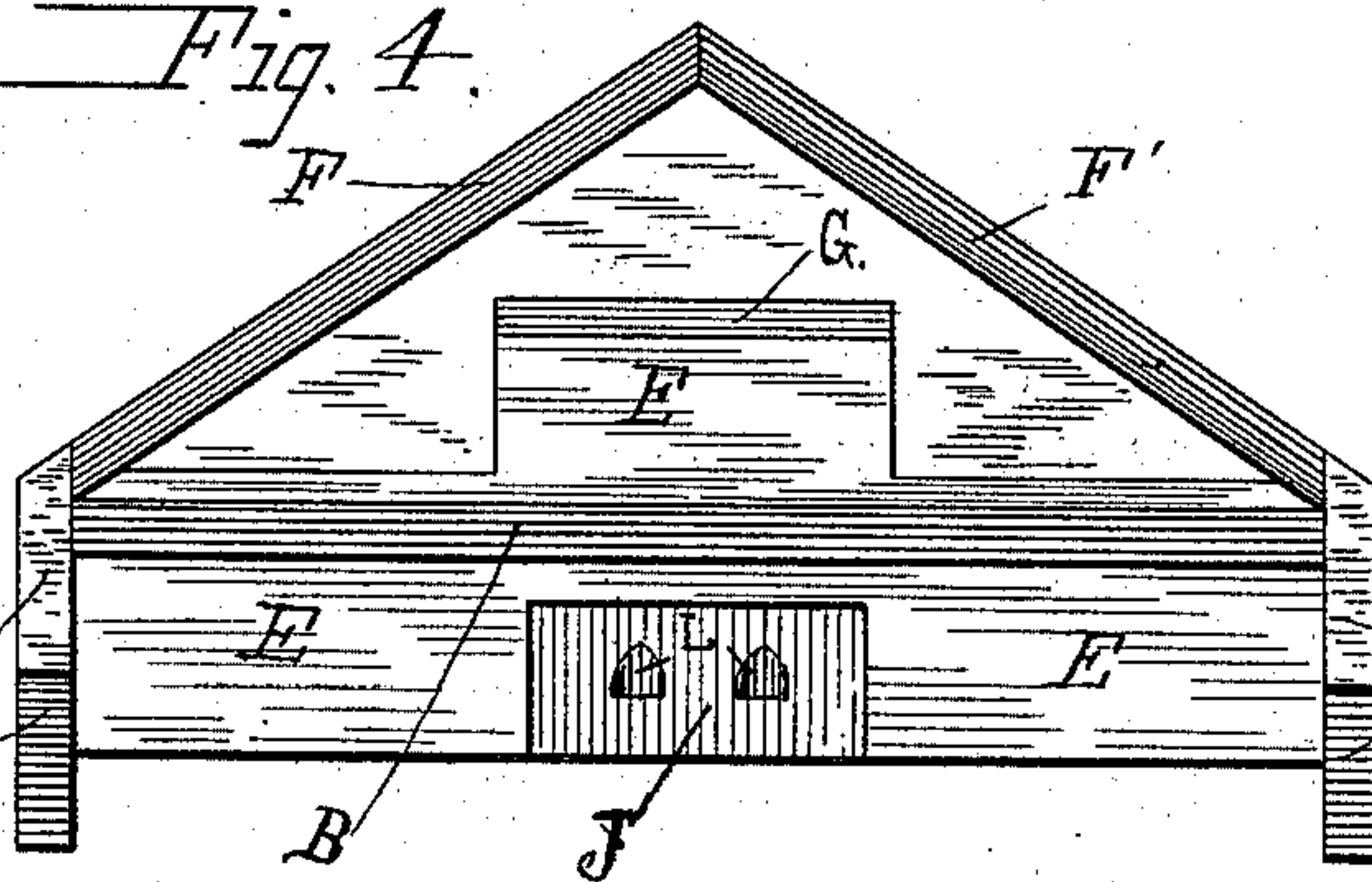
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses  
R. A. Balderson  
L. C. Sullivan

Inventor  
G. W. Goad, Sr.  
By L. Bingham  
His Attorney



(No Model.)

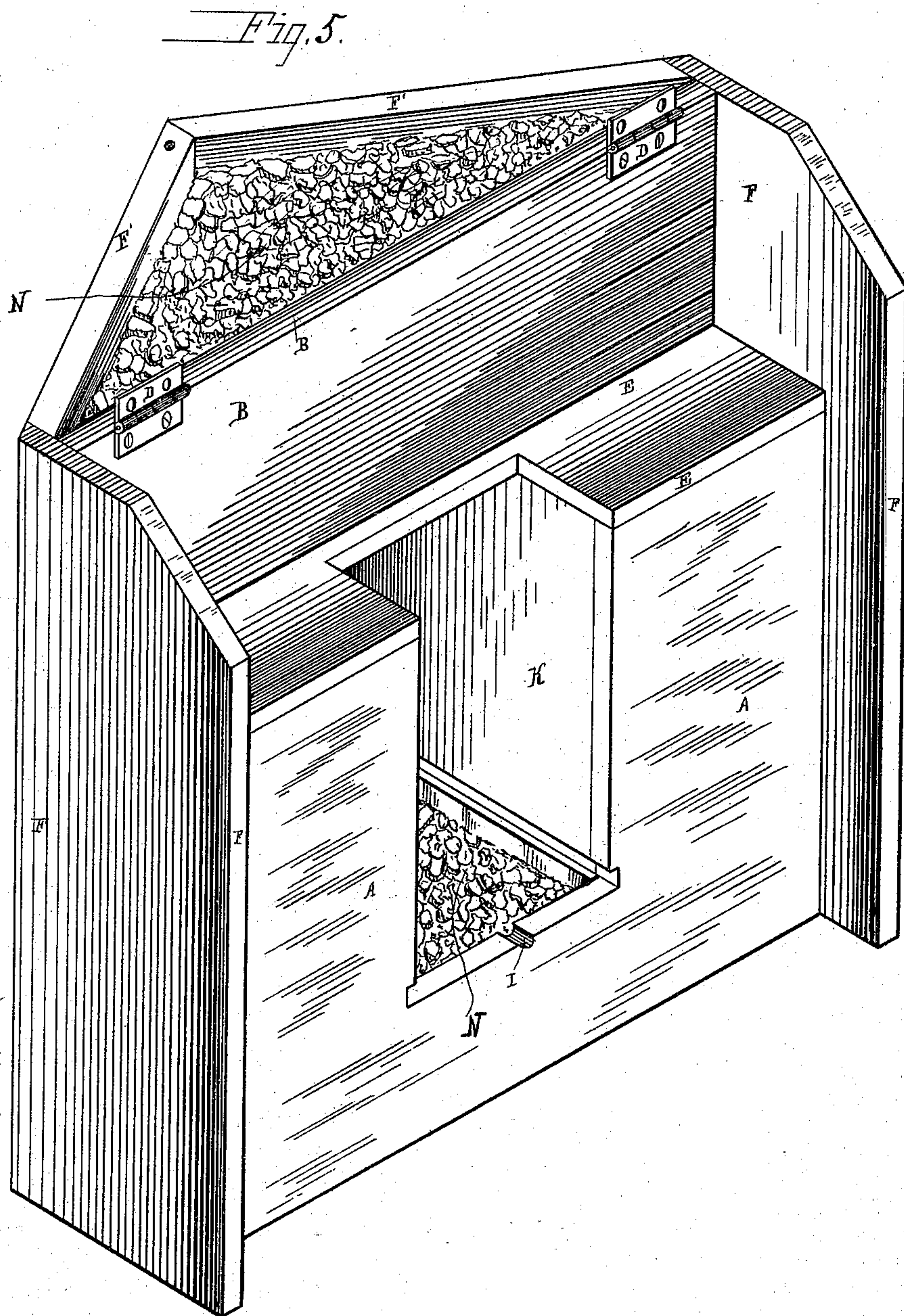
3 Sheets—Sheet 3.

G. W. GOAD, Sr.

GRAVEL FOUNTAIN SPRING.

No. 385,349.

Patented July 3, 1888.



Witnesses  
R. A. Balducci.  
H. C. Killigan.

Inventor  
George W. Goad Sr.  
By  
L. Bingham.  
Attorney



# UNITED STATES PATENT OFFICE.

GEORGE WASHINGTON GOAD, SR., OF ARAL, VIRGINIA.

## GRAVEL-FOUNTAIN SPRING.

SPECIFICATION forming part of Letters Patent No. 385,349, dated July 3, 1888.

Application filed October 1, 1887. Serial No. 251,207. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE WASHINGTON GOAD, Sr., a citizen of the United States of America, residing at Aral, in the county of Carroll and State of Virginia, have invented certain new and useful Improvements in a Gravel-Fountain Spring, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in filters; and its objects are, first, to purify natural sources of water with substantially natural agencies; second, to reclaim polluted springs or wells by similar means; and, third, to effect these purposes with an economical, simple, and durable structure. I attain these ends by the apparatus illustrated in the accompanying drawings, in which—

Figure 1 represents a top plan view of my filter. Fig. 2 is a horizontal section on the line *yy* of Fig. 1. Fig. 3 is a vertical section through the line *xx* of Fig. 1. Fig. 4 is a plan view of the same, with the cover *C* removed; and Fig. 5 is a perspective view of the filter, with the cover *C* and lid *J* removed to show the interior arrangements.

The same designations indicate corresponding parts in the views.

From a sanitary standpoint the purity of a water-source is a factor yielding to no other in importance as regards prophylactic and therapeutic power. The causes tending to contaminate and impregnate our water-courses are so various that it is supererogatory to enumerate them. Spores and germs of diseases are often suspended in the water, and animalculæ of dangerous character frequently utilize the springs and wells as habitats. It is not uncommon, also, that sewage leaks into the springs or sinks to the water-bearing strata, so as to charge the same. As far, therefore, as an invention will tend to neutralize or nullify these dangerous incidents of our aqueous supply, it will proportionately assist the human family to health and longevity. This is the aim of my invention.

The angular upright walls *F'*, supported by struts *F*, abut against the sides of the well or

spring. The frame *A*, held in place by the struts *F*, serves as one of the walls of the box *J'*, provided with a suitable cover, *J*, to keep dust from blowing therein, and ordinarily partially filled with gravel and hard silicious rock, *N*, with or without other filtering media. The other walls of this box are formed by the uprights *G* *K* and the cross-bar *E*.

*B* is the upper wall of the storage-reservoir *F''*, the other walls being formed by the box *O* (which can ordinarily be dispensed with) and the upright walls *F* *F'* *G*.

*L* are indentations in the sliding lid *J* to facilitate its operation.

My filter is usually built up of marble slabs or of molded earth sustained by wooden partitions, or both; but, of whatever material constructed the shape is uniformly that shown in the drawings.

The water falls through the top *C*, normally open, or it enters at the base through the aperture *M'*, or both. Thence it percolates through the hard broken rock and gravel, *N*, in the reservoir *F''* and passes through the perforation *M* to the accumulating-trough *J'*, whence it is dipped out or overflows through the channel *I*. When the lid *J* is wholly or partially removed, the water from the perforation *H* also falls into the trough *J'*.

The materials, *N*, are periodically cleansed by washing and drying and are then replaced.

Having thus fully described my improvements, what I claim is—

The filter herein described, consisting of the upright frames *A* *F* *F'* *K*, which are inserted in a spring or well and form containing-walls for the filtering media, *N*, in combination with the communicating reservoirs *F''* *J'*, formed by the said upright walls and cross-pieces *B* *E*, the hinged top *C*, and the aperture *M'*, the base *O*, and the wall *G*, having apertures *H* *M*, for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE WASHINGTON GOAD, SR.

Witnesses:

WILLIAM A. HURST,  
STEPHEN M. LINDSEY.