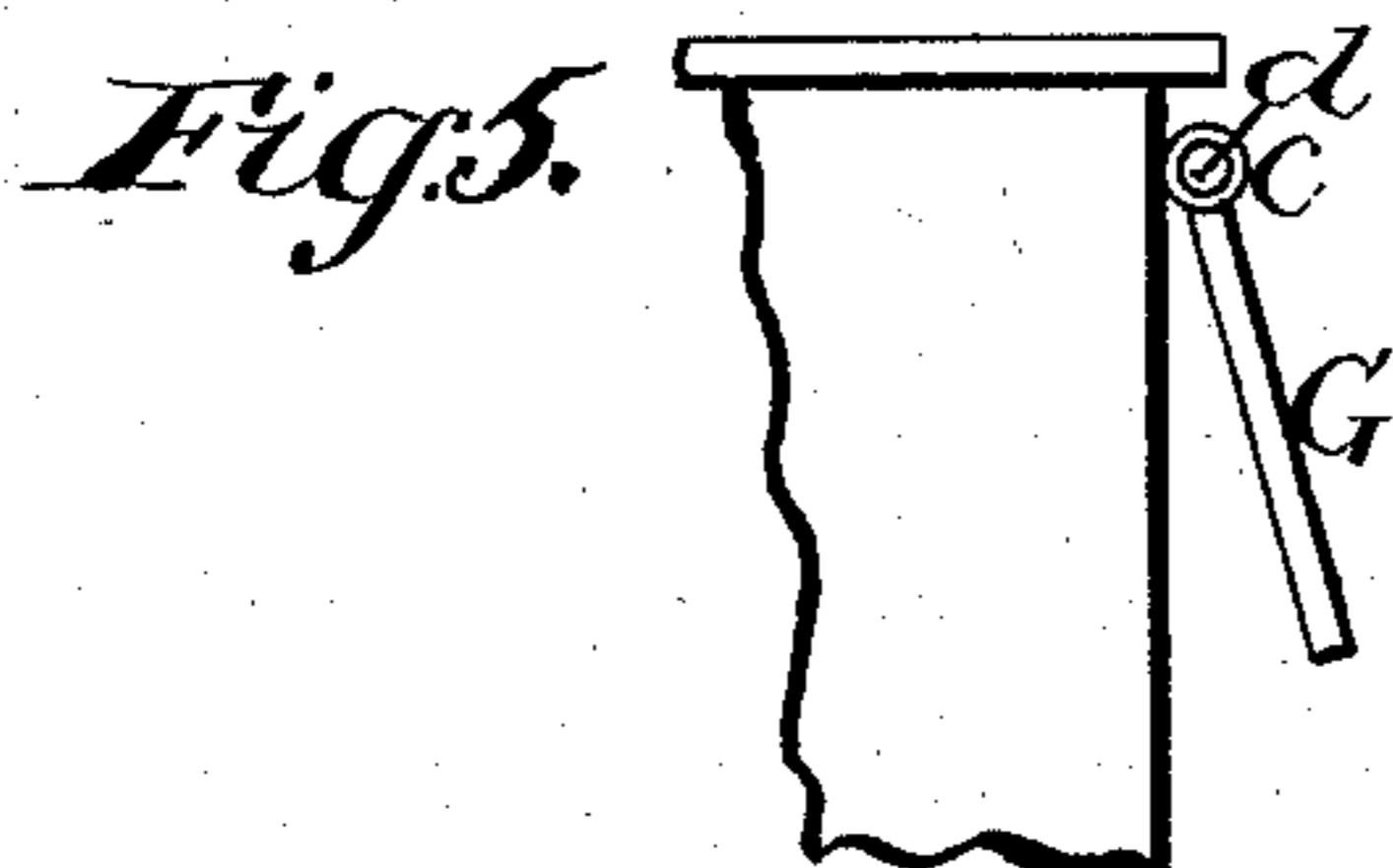
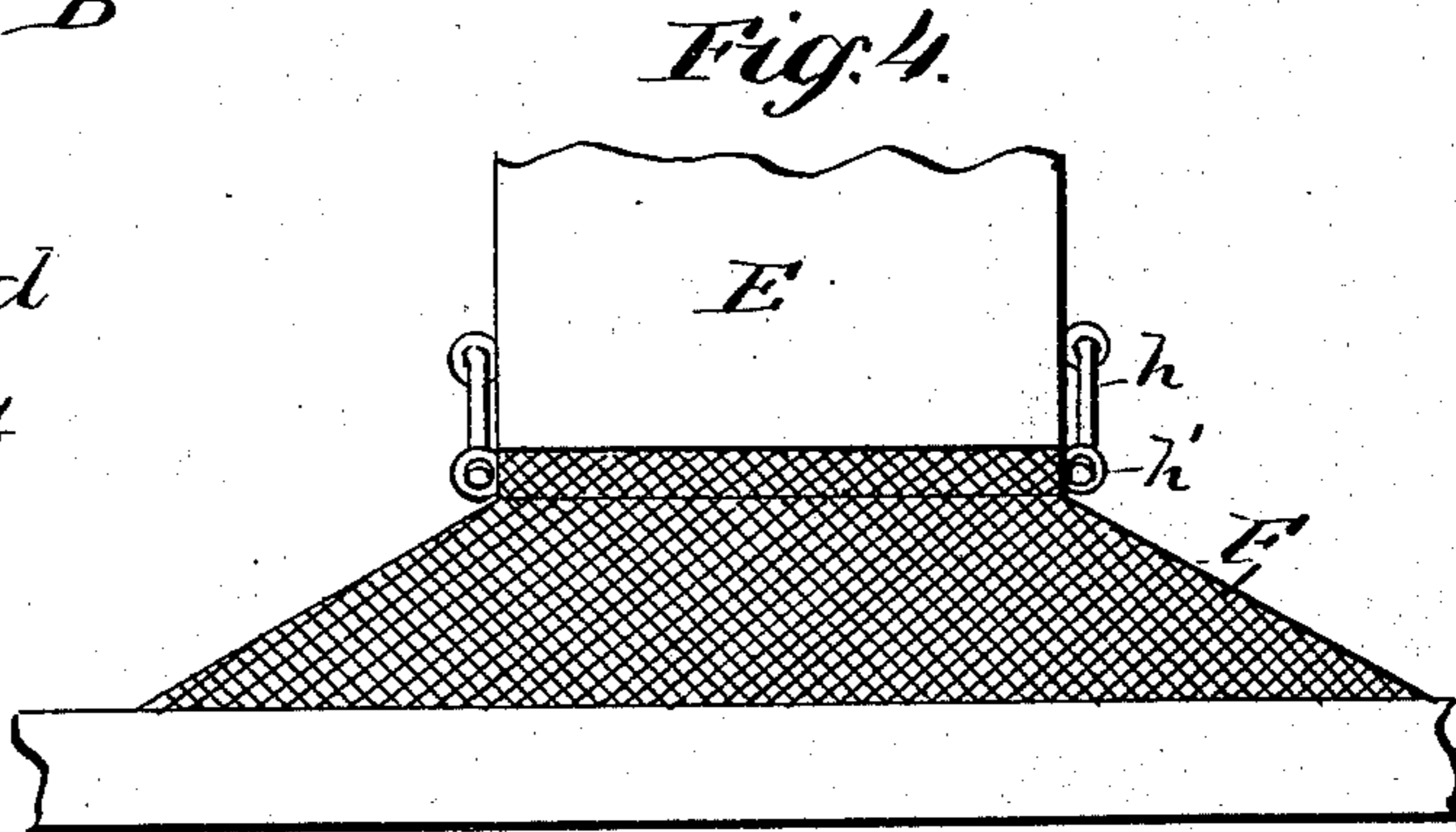
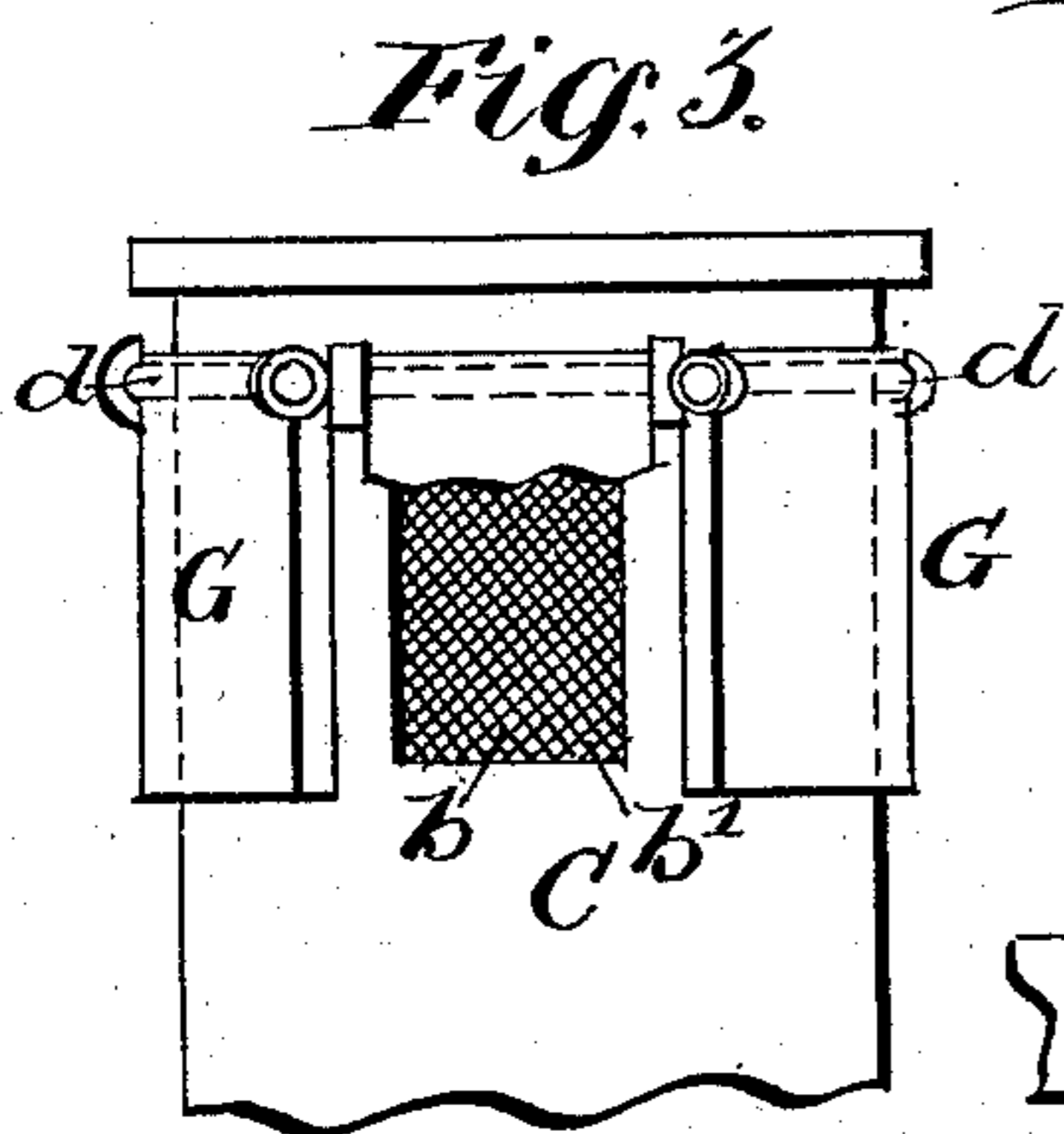
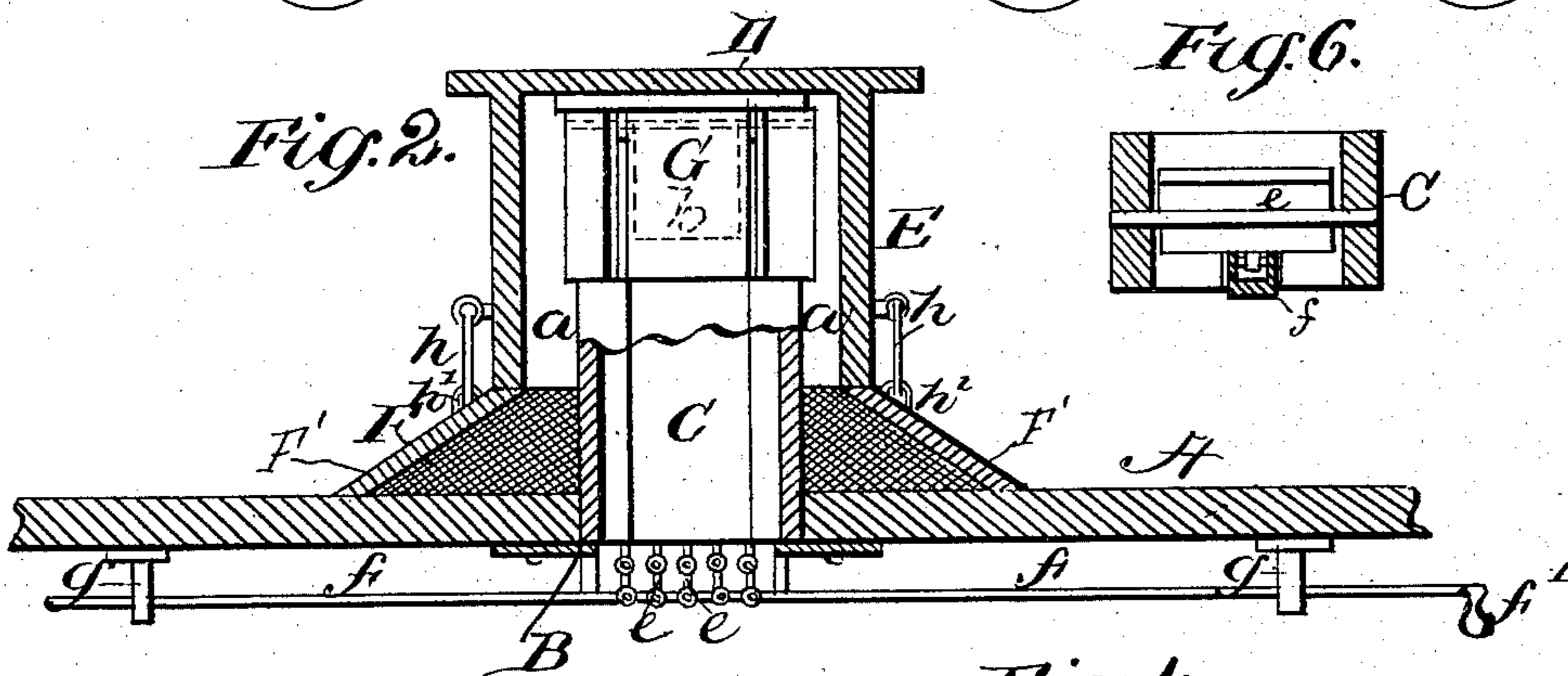
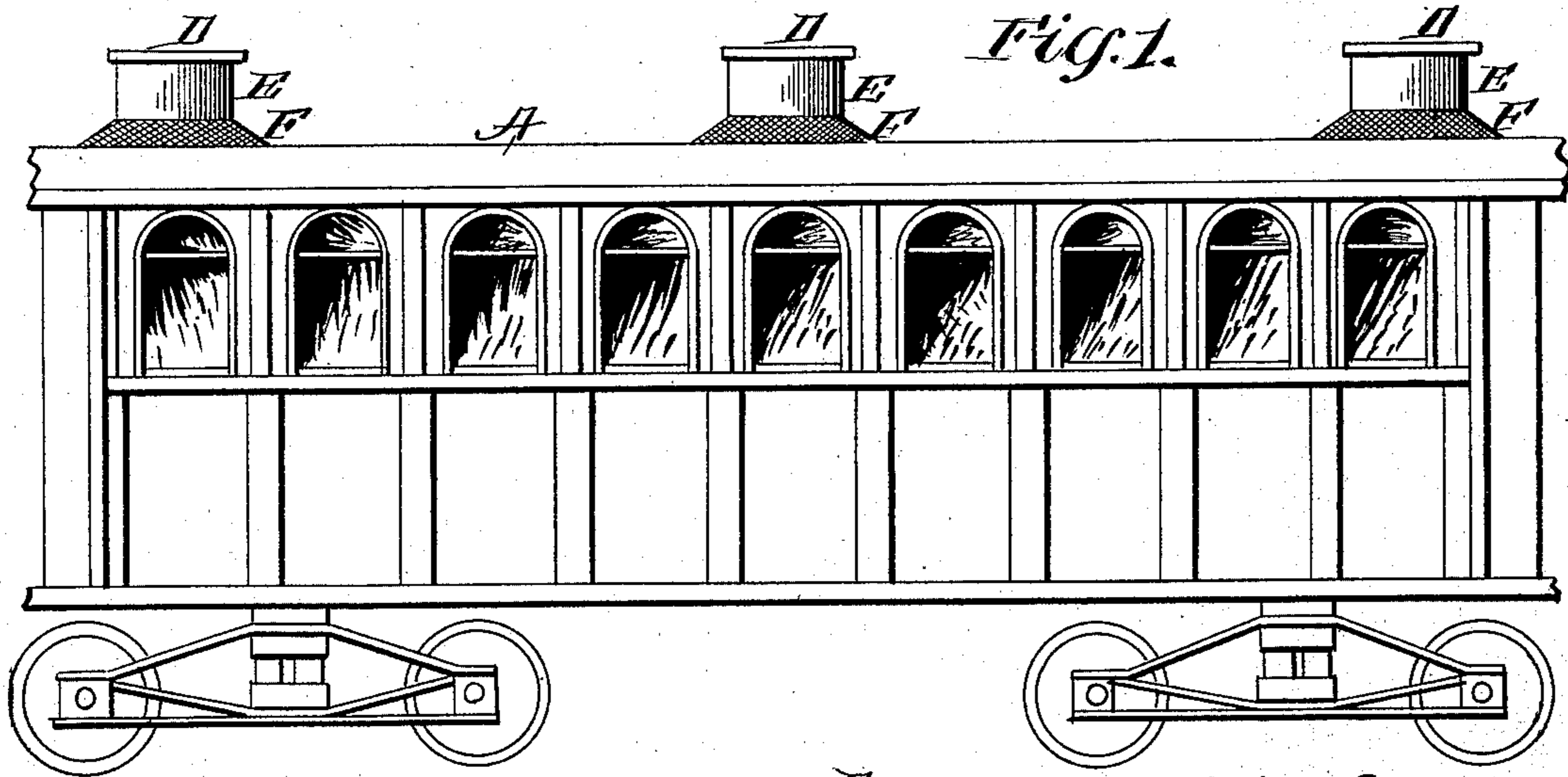


(No Model.)

H. PENOYER.
VENTILATING CAR.

No. 388,504.

Patented Aug. 28, 1888.



Witnesses,
O. Fred. Keller,
b. K. Barnes.

Inventor,
Hiram Penoyer,
by
H. J. England,
Attorney.

UNITED STATES PATENT OFFICE.

HIRAM PENOYER, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR OF FIFTY-ONE ONE-HUNDREDTHS TO JOSEPH F. COLLINS AND JAMES E. HIBBS, OF SAME PLACE.

VENTILATING CARS.

SPECIFICATION forming part of Letters Patent No. 388,504, dated August 28, 1888.

Application filed December 29, 1887. Serial No. 259,325. (No model.)

To all whom it may concern:

Be it known that I, HIRAM PENOYER, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Ventilating Cars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain new and useful improvements in ventilating cars; and it consists of a series of box-like frames having openings, swing-doors, suitable screens, and over-caps, all of which are secured to the top of railroad-cars over openings.

The object of my invention being to automatically ventilate railroad-cars from the roof of the same, I attain this object by means of the peculiar construction and arrangement of the various parts of my invention, which will be more fully pointed out and described in the specification and claims.

Reference being had to the drawings accompanying this application and forming part of the same, Figure 1 is a side elevation of a car having my invention applied thereto. Fig. 2 is a vertical sectional view of the ventilator. Figs. 3 and 5 are detail views. Fig. 4 is a side elevation, partly in section, showing screen embracing base of ventilator. Fig. 6 is a sectional view of slats and rod.

Similar letters refer to like parts throughout the drawings.

Referring to the drawings, A represents the top section of a railroad-car, that is provided with openings B, over which are secured the ventilator-frames C. Said frames or chimneys extend upward from the top of the car, and are formed of any suitable material and size. They may be also formed round or square, as may be desired. The frames or casings C, being hollow and secured to the top of the car over the openings B, are provided with caps D, having downward-projecting cylinders or walls E, extending to the edge of a dust wire screen, F, within a short distance of the top of the car, the opposite edge of said screen F being

secured to the top of the car and encircling the lower edge of the walls of said caps. 50

Inclined supporting-strips F' may be used to strengthen the structure; but these are not essential, as the wire fabric is of itself sufficiently strong where the structure is properly constructed and proportioned. 55

The caps D are formed to extend over and around the frames or casing C, forming an air-space, a.

The casings C are provided with openings b, that are covered by wire screens b', to keep out dust or dirt. 60

On the outside of the casings C, and in front of each opening b, are hung curtains or swing-blinds G, that are held at their upper ends to the casings C above the openings b by means of staples c, that encircle the outer ends of rods d, that pass through the upper ends of said blinds G, the free ends of said blinds G being thrown outward by the outflowing air rising from the inside of the car, and closing against any inflow of dust-laden air or moisture, thus being automatic in their action. 65 70

At the openings B, and near the under edges of the casings C, are loosely secured a series of movable slats, e, that are endwise pivoted and constructed to open and close against each other horizontally, acting as registers to open or close the openings B. Said series of slats e is connected to a longitudinal rod, f, secured to the under surface of the top A of the car, and at either end of said rod f is secured a handle, f', within easy reach of the conductor. Said rod f being loosely held in place by eye-bolt g, it is readily moved longitudinally by the operator, thus opening or closing the series of slats e at will. 75 80 85

The lower ends of the walls of caps D are provided with hooks h, that are adapted to hook into eyes or staples h', secured to the upper edge of dust-screen F, by which means said caps D are removably held in place. 90

The operation of the device is simple, and is readily controllable by the conductor or other attendant from the interior of the car, who, by simply grasping the handle f', may shift the rod f to either open or close the slats 95

e, as may be desirable or necessary to confine or to permit the escape of the air in the car.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, 5 is—

1. A ventilating-top for cars, consisting of a casing provided with side openings and secured to the top of a car over an opening in said car, swing-blinds pivoted above said openings, and a cap or hood extending over said casing and projecting downward below said blinds, 10 in combination with the encircling screen F and a series of slats pivoted at the said car-opening and connected to an operating-rod, 15 substantially as set forth.

2. In a car-ventilator, a casing provided with side openings having screens and secured over an opening in the top of the car, vertical swing-blinds hung over said openings, a cap extending over said casing, and a dust-screen connected thereto by hooks and eyebolts, in combination with a series of slats connected to an operating-rod, substantially as shown and specified. 20

In testimony whereof I affix my signature in presence of two witnesses. 25

HIRAM PENOYER.

Witnesses:

ROBT. H. BRADFORD,
EMMA M. GILLET.