

(No Model.)

T. F. STRACHAN, Jr.  
SANITARY CLOSET.

No. 584,425.

Patented June 15, 1897.

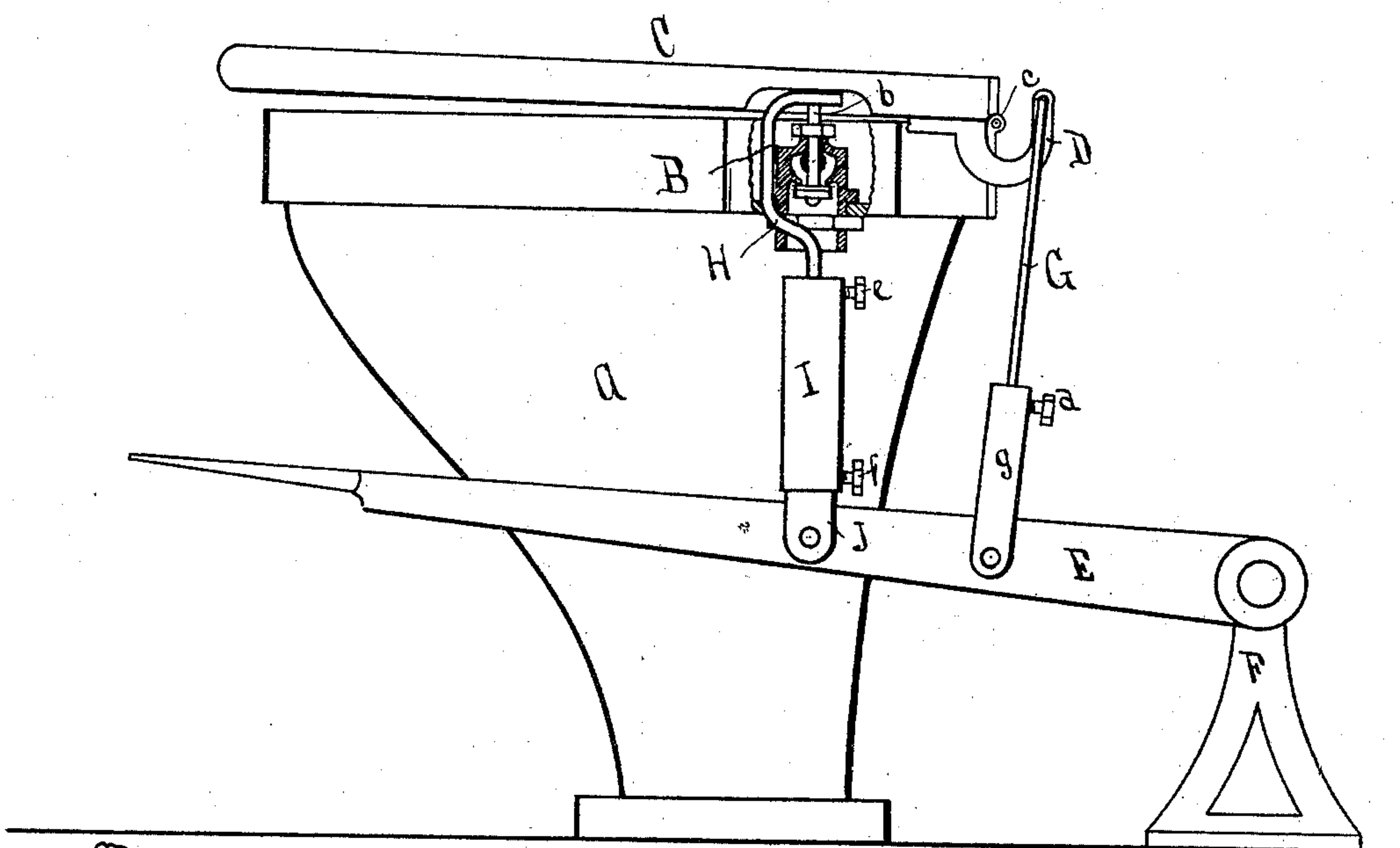


Fig. 1.

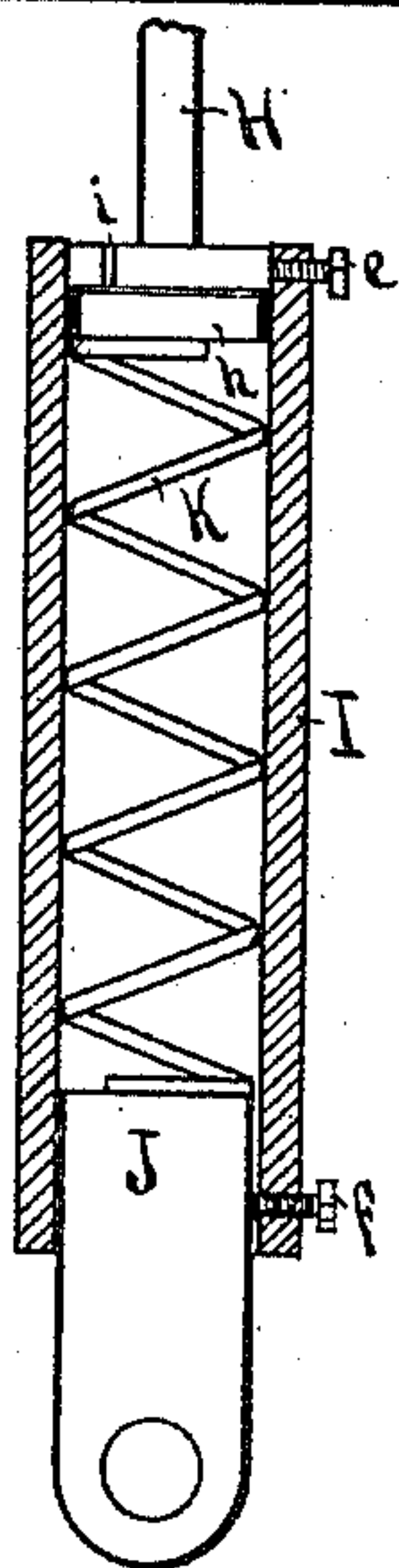


Fig. III.

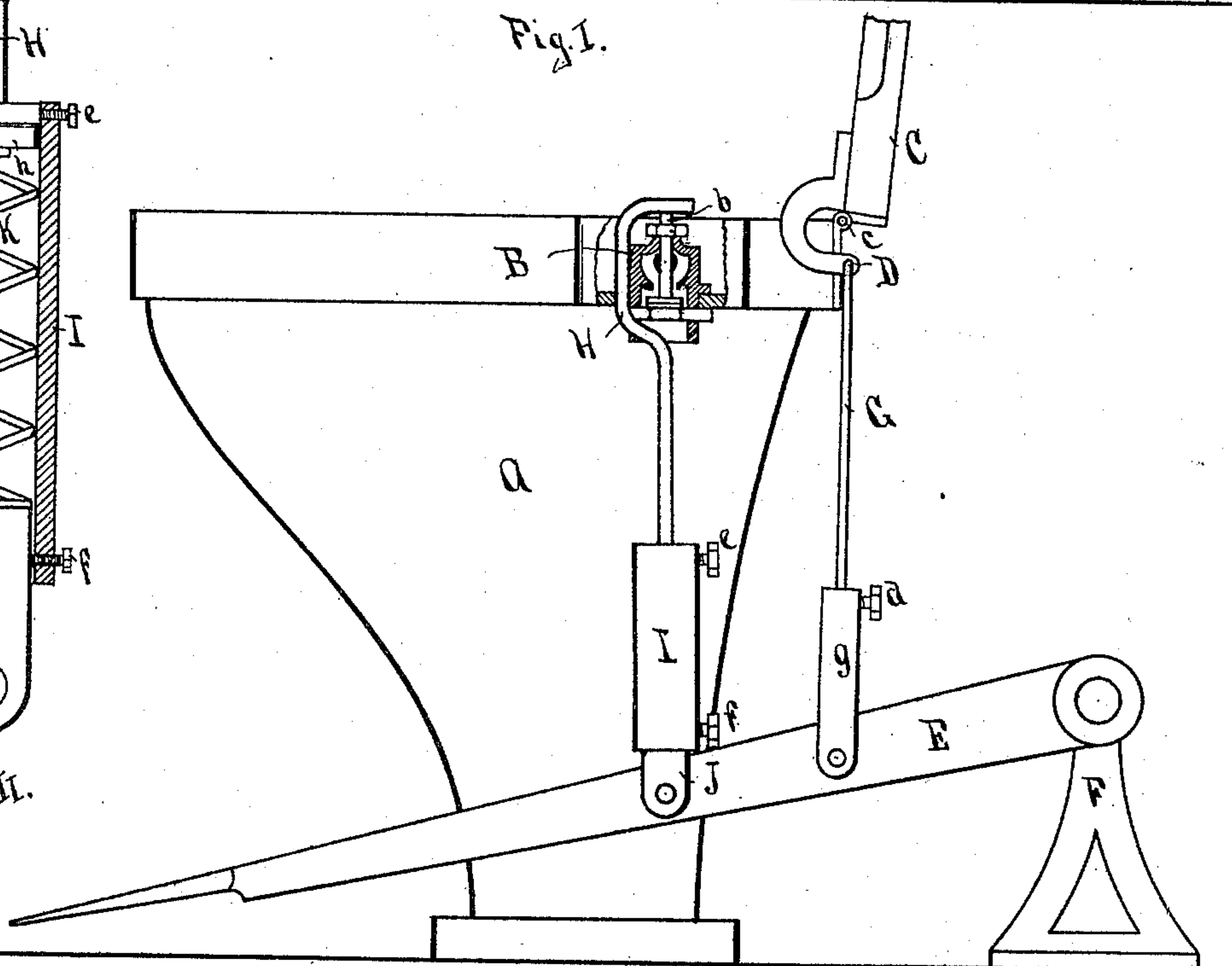


Fig. II.

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By his attorney,  
John L. Cronin.

Witnesses:

William Macomber  
Charles M. Hughson.

# UNITED STATES PATENT OFFICE.

THOMAS F. STRACHAN, JR., OF BUFFALO, NEW YORK.

## SANITARY CLOSET.

SPECIFICATION forming part of Letters Patent No. 584,425, dated June 15, 1897.

Application filed November 18, 1896. Serial No. 612,546. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS F. STRACHAN, Jr., a citizen of the United States, residing at the city of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Sanitary Closets, of which the following is a full, clear, and exact description.

My invention relates more particularly to that class of sanitary closets which are substantially combination sanitary closets and urinals and which are flushed either directly through a spring-valve or through a tank.

Referring to the drawings herewith, consisting of one sheet, in which like letters refer to like parts, Figure I is an elevation of the closet, showing my invention. Fig. II is a similar view showing said closet as a urinal. Fig. III is a detailed vertical cross-section of my spring-plunger mechanism hereinafter more fully described.

A is a closet of any desired form.

B is a flush-valve, the pressure-stem being shown at *b*.

C is the seat to the closet, which is hinged thereto at *c*.

E is a treadle or lever-arm, which is pivoted to the post F, which is in turn secured either to the floor or to the adjacent wall.

D is a lever-arm secured to the seat C and connected with the treadle E by means of the rod G and the tubular rod *g*, said rod G and said tubular rod *g* being adjustably connected by means of the set-screw *d*. The pivotal point of connection between said lever-arm D and said rod G is at a point slightly above the pivotal point of the hinge *c*, as shown in the drawings, so that when the seat C is raised, as shown in Fig. II, the pivotal point of the lever-arm D will be without the vertical line of the pivotal point of the hinge *c*, so that the seat C may be returned to place, as hereinafter shown.

H is a connecting-rod secured at its upper end to the stem of the valve *b* and connected through the cylinder I and the lug J with the treadle E. Upon the lower end of the rod H (see Fig. III) is a piston-head *h*, to which is secured an extension-spring K, which at its lower end is in turn secured to the lug J. The upper end of the cylinder I is closed by means of an adjustable packing-ring held in

place by the set-screw *e* and which is provided with a small vent or opening *i*. The lug J is also adjustable within the cylinder I by means of the set-screw *f*.

In operation, when the closet is used as a closet, the normal pressure brought to bear upon the seat C presses down the stem *b* and flushes the closet. When used as a urinal, the treadle is forced downward from the position shown in Fig. I to that shown in Fig. II. The seat C is raised by means of the lever-arm D, and the connecting-rods joining it with the treadle E. The spring K within the cylinder I is extended, thus drawing the rod H downward and by pressure upon the stem *b* flushes the closet. The action of throwing the treadle downward and raising the seat is rendered gradual by reason of the slow expulsion of the air within the cylinder I through the vent *i*. When the foot is removed from the treadle, the spring draws it upward and the plunger *h* descends gradually as the air is admitted to the cylinder through the vent *i*, thus closing the valve B and gently returning the seat C to place, as shown in Fig. I.

It is apparent that the position of the spring K may be changed so as to act as a compression-spring engaging against the packing-ring and the piston-head without departing from the spirit of my invention.

As the closets differ in height it is necessary that the mechanism be made adjustable, and therefore the connecting elements I and J and G and *g* are adjustable through the set-screws *f* and *d*, respectively, and it will be seen that the closet shown in Fig. II is somewhat higher than that shown in Fig. I, for the purpose of illustrating this adjustment. It will also be seen that the device may be applied to any closet already in use, since the mechanism is substantially without that of the closet and simple of construction and connection.

Having thus described my invention, what I claim is—

1. A closet provided with a flushing-valve, a treadle pivotally secured to the building, a rod connected with said valve and provided with a piston-head, a cylinder pivoted to said treadle and engaging said piston-head, a spring connecting said piston-head mediately



with said cylinder, and a packing-ring secured within the upper portion of said cylinder and provided with an air-vent, for the purposes set forth.

- 5 2. In a closet provided with a flushing-valve and a hinged seat, a treadle pivotally secured, a lever-arm and rod for actuating said seat, a rod engaging said valve provided with a piston-head, a cylinder adjustably pivoted to  
10 said treadle and engaging with said rod and piston-head, a spring connecting said rod and said cylinder, and a packing-ring provided with a vent secured within said cylinder,

whereby the seat is raised and the closet flushed simultaneously, and whereby the 15 valve is closed and the seat returned to place simultaneously, and without shock to the valve or slamming of the seat, substantially as set forth.

In testimony that I claim the invention 20 above set forth I affix my signature in presence of two witnesses.

THOMAS F. STRACHAN, JR.

Witnesses:

WILLIAM MACOMBER,  
MARY L. EVERETT.