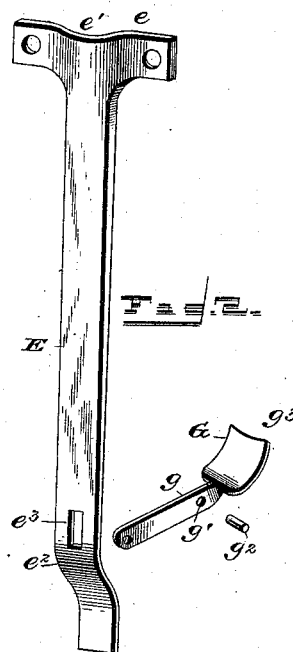
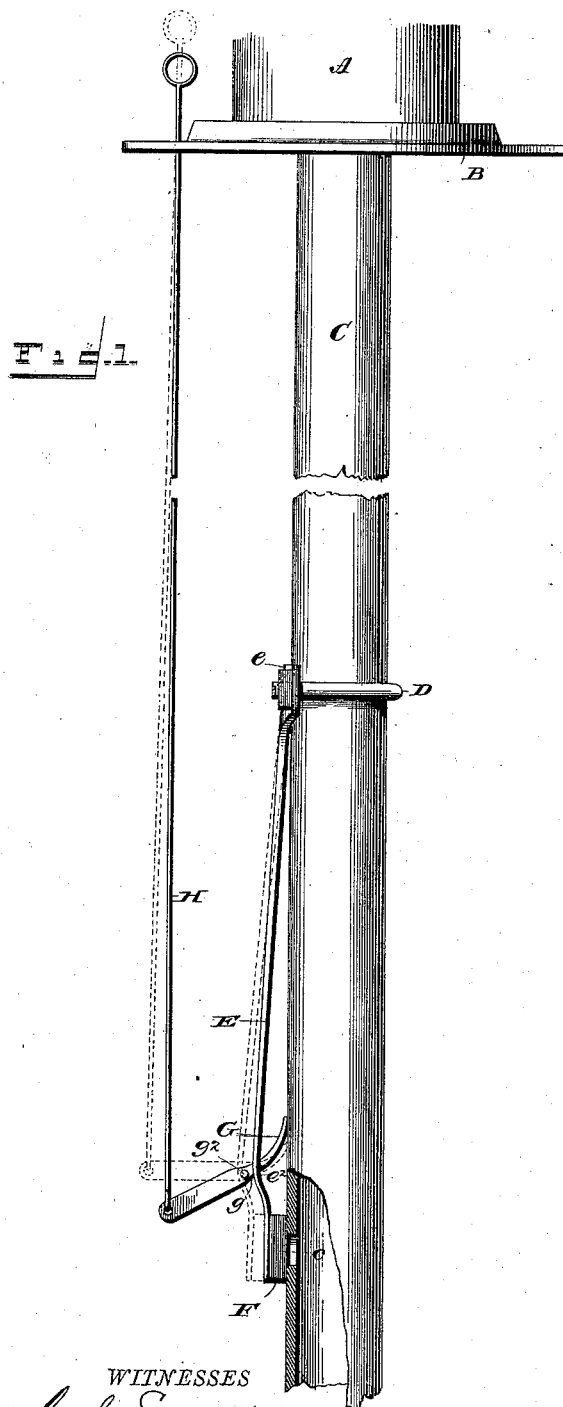


(No Model.)

A. SCOUGAL.  
VENT STOPPER FOR PUMPS.

No. 383,773.

Patented May 29, 1888.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

ANGUS SCOUGAL, OF HICKORY CORNERS, MICHIGAN.

## VENT-STOPPER FOR PUMPS.

SPECIFICATION forming part of Letters Patent No. 383,773, dated May 29, 1888.

Application filed February 9, 1888. Serial No. 263,474. (No model.)

*To all whom it may concern:*

Be it known that I, ANGUS SCOUGAL, a citizen of the United States of America, residing at Hickory Corners, in the county of Barry and State of Michigan, have invented certain new and useful Improvements in Vent-Stoppers for Pumps; 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to certain new and useful improvements in vent-stoppers; and it consists in the novel construction and arrangement of the parts thereof, which will be more fully hereinafter described, and pointed out in the claims.

The object of my invention is to construct a vent-stopper which is simple and effective in its operation and construction, strong and durable, easily handled, and readily understood. I attain this object by the construction illustrated in the accompanying drawings, wherein like letters of reference indicate similar parts in the several views, and in which—

Figure 1 is a side elevation of a portion of a pump-stock and well-tube, showing my improved vent-stopper in connection therewith. Fig. 2 is a detail perspective view of the spring-arm, which carries the vent-stopper plug at its lower end, and also showing the pressure-pawl, which is mounted in connection with said vent-stopper-carrying arm.

A indicates the pump-stock, B the platform, and C the well-tube. The well-tube is provided with a vent-opening, *c*. A clip, D, surrounds the well-tube C, the screw-threaded ends of which pass through apertures in a T-head, *e*, integrally formed with the upper portion of a spring-arm, E. This T-head *e* of the arm E is formed with a curved depression, *e'*, which admits of a close connection thereof with the well-tube C. The lower portion of the spring-arm E is formed with a bend at the point *e''* at the lower end of the said arm, the inner face of said lower portion of the arm having a vent stopper or cushion, F, secured thereto. This lower bend in the said arm E permits of

a space being formed between the lower portion of the arm and the well-tube, and at the same time allows the vent stopper or cushion F to be normally held in contact with the vent-opening *c* in the well-tube.

The lower portion of the arm E is formed with a slot, *e''*, through which the shank *g* of a pressure pawl or arm, G, is passed, and to the outer end of which the pull or operating rod H is secured at its lower end, the upper end thereof extending up through the base-plate B for engagement by the person using the pump, as will be readily understood. The pressure pawl or arm G is also formed with an aperture, *g'*, near its inner end, through which a pin, *g''*, is inserted on the outer side of the spring-arm E, as fully shown in Fig. 1. The inner end of the said pawl or arm G is broadened, as at *g'''*, and slightly concave on its under side. This broadened portion of the said pawl or arm G bears against the well-tube C, the pin *g''* holding the said broadened portion of the arm against the well-tube when operated, and the shoulders formed by said broadened portion of the arm have bearing against the inner face of the arm E on each side of the slot *e''* in the lower portion thereof, which prevents the arm G from becoming disengaged from the arm E.

The operation of my improved device is as follows: When the pull-rod H is drawn upward, the inner broadened end of the pressure pawl or arm G is brought to bear firmly against the well-tube, the shoulders of said broadened portion forcing the arm E outward, the said latter arm being limited in its outer movement by the pin *e''*, passing through the shank of the pressure pawl or arm G. When the pull-rod is released, the arm E resumes its normal position and closes the vent, which was opened by the previously-described operation.

I claim—

1. In a vent-stopper for pumps, the combination, substantially as before set forth, of the well-tube having a vent, an elongated spring-arm secured thereto at one end and outwardly inclined therefrom, and having a cushion on its lower end to engage with the vent, a pawl carried in the lower end of said spring-arm having an inner T-head movably bearing against the well-tube, and a pull-rod secured to the outer end of said pawl.

2. In a vent-stopper for pumps, the combination, substantially as before set forth, of the well-tube having a vent therein, an elongated spring-arm secured to said tube by a clip having a slot in its lower end, a vent-closing cushion below said slot and outwardly inclined from the tube, the pawl mounted in the lower slotted end of the spring-arm having a T-head movably bearing against the tube and against the spring-arm to prevent disengagement therefrom, a transversely-arranged pin passing

through said pawl on the outside of the spring-arm to limit the outward movement of the said spring-arm, and a pull-rod secured to the outer end of said pawl.

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

ANGUS SCOUGAL.

Witnesses:

W. A. DRAPER,

F. A. BLACKMAN.