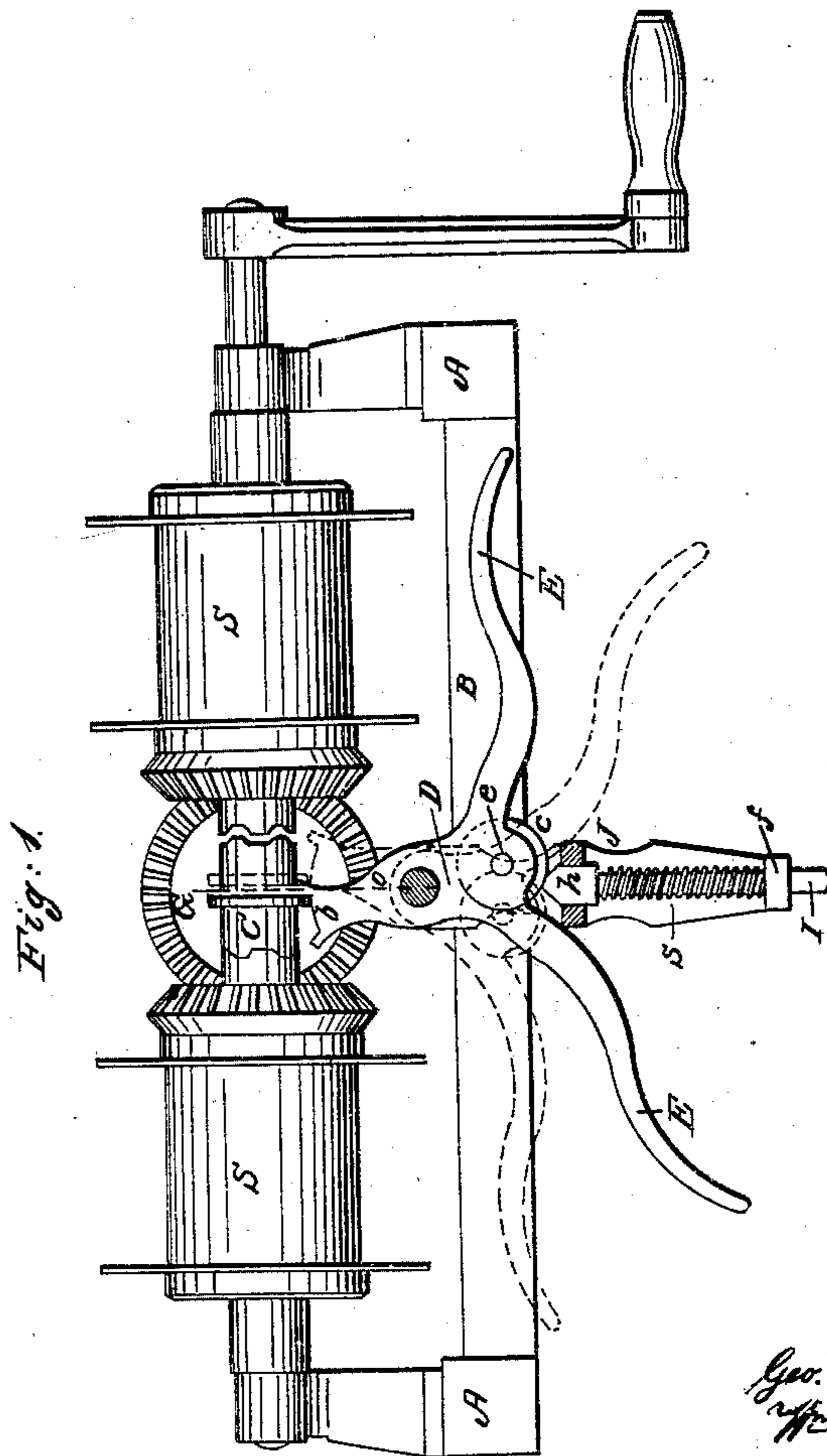
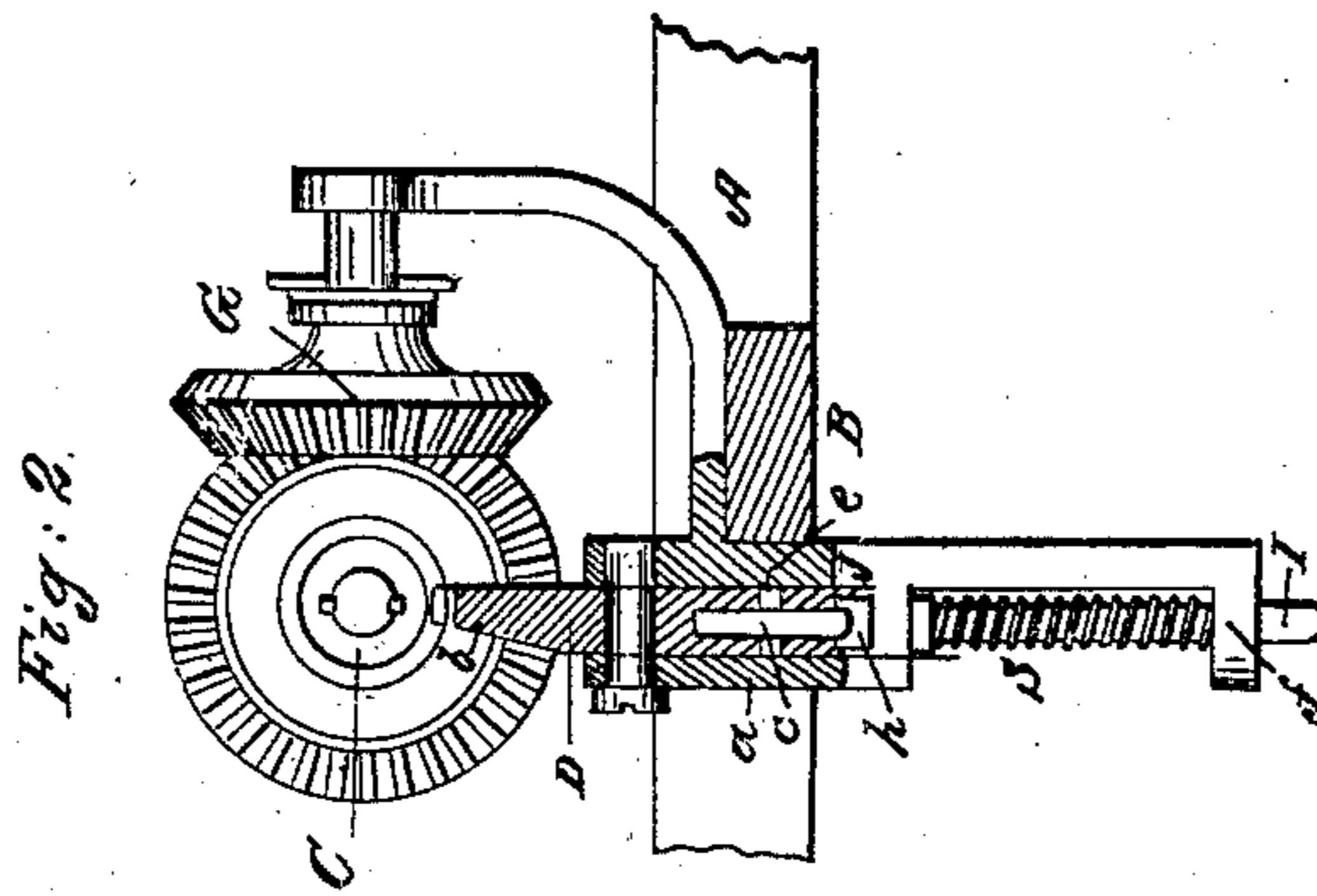


G. B. CURTIS.  
Water Elevator.

No. 58,019.

Patented Sept. 11, 1866.



Witnesses:  
L. C. Bredt.  
S. H. H. H. H.

Inventor:  
Geo. B. Curtis by his atty  
Wm. S. Loughborough.

# UNITED STATES PATENT OFFICE.

GEORGE B. CURTIS, OF WOLCOTT, N. Y., ASSIGNOR TO P. K. BRONSON.

## IMPROVEMENT IN WATER-ELEVATORS.

Specification forming part of Letters Patent No. 58,019, dated September 11, 1866.

*To all whom it may concern:*

Be it known that I, GEORGE B. CURTIS, of Wolcott, in the county of Wayne and State of New York, have invented a new and useful Improvement in Water-Elevators; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a front elevation of the windlass and its appurtenances, the plate *a* of the hanger-jaw *J* being broken away to show the V-shaped head *h* of the locking-bolt. Fig. 2 is a transverse section taken in the direction of the red line *o* in Fig. 1.

Similar letters indicate like parts.

This invention belongs to that class of water-elevators in which two self-dumping buckets are employed; and its nature consists in so constructing and arranging the tilting or shifting lever as to avoid the use of any auxiliary lever; and also in substituting a spiral spring for the strap-spring heretofore used for securing the proper adjustment of the parts.

To enable others to make and use my invention I will describe it more fully.

*A* represents the top of the curb-frame; *B*, the cross-bar, to which the hanger-jaw *J* is bolted. I use the double spools *S*, intermediate gear *G*, and feathered clutch *C*, ordinarily employed in this class of water-elevators; but I extend the arms *E* of the tilting lever *D*, as shown in Fig. 1, so that the dumping-buckets shall strike them directly, instead of using two sets of arms, as heretofore done. The fork of the lever at *b* is spread so as to permit that portion of the lever to swing past the center

before operating upon the clutch *C*, whereby the center of the traverse-pulley *c* is carried past the point of the V-shaped head *h* of the spring-bolt *I*, and hence the change of the sliding coupling or clutch is effected by the spring *s*, and that instantaneously. The lever *D* is pivoted to the hanger-jaw *J* at *e*, and the pulley *c* is pivoted to the lever below its axis. The square opening through the stock or jaw *J* for head of the spring-bolt *I* to work in may be cored out, and the hole in the foot-plate *f*, for the lower end of the bolt, may also be cored, if desired, or it may be drilled.

One end of the spring *s* rests against the head *h* of the bolt *I*, and the other upon the plate *f*.

It will be seen that this construction and arrangement of the parts constitute a much simpler and cheaper device, and also a much more durable one than those in common use for the same purpose.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The arrangement, in double-bucket water-elevators, substantially as shown, of the single tilting lever *D* and its spring-bolt *I*, in combination with the sliding clutch *C*, for the purposes set forth.

2. The spiral spring *s* and its locking-bolt *I*, in combination with the tilting bar *D*, substantially as and for the purpose herein shown and described.

GEO. B. CURTIS.

Witnesses:

GEO. E. DILL,  
J. P. SHELDON.