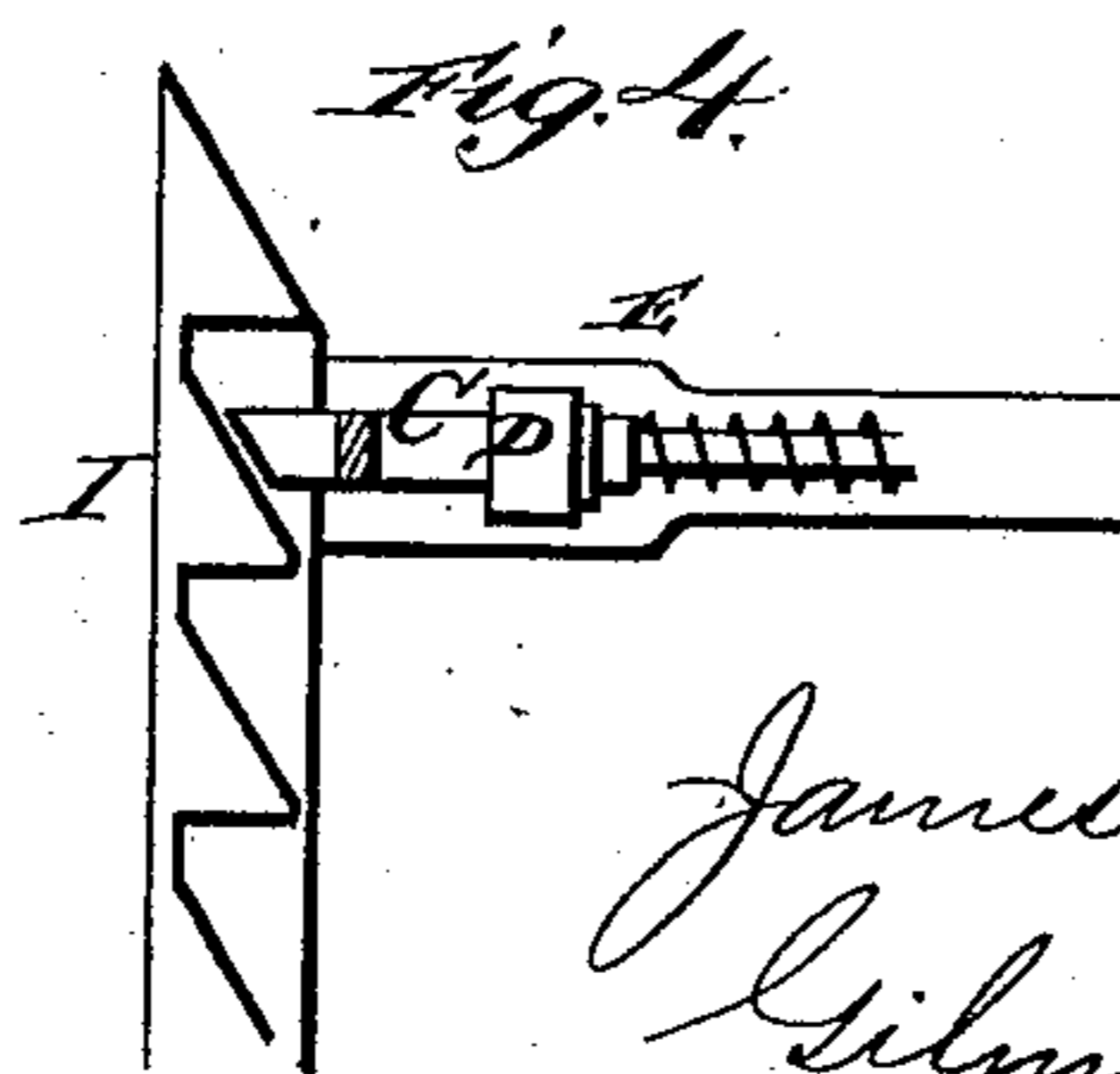
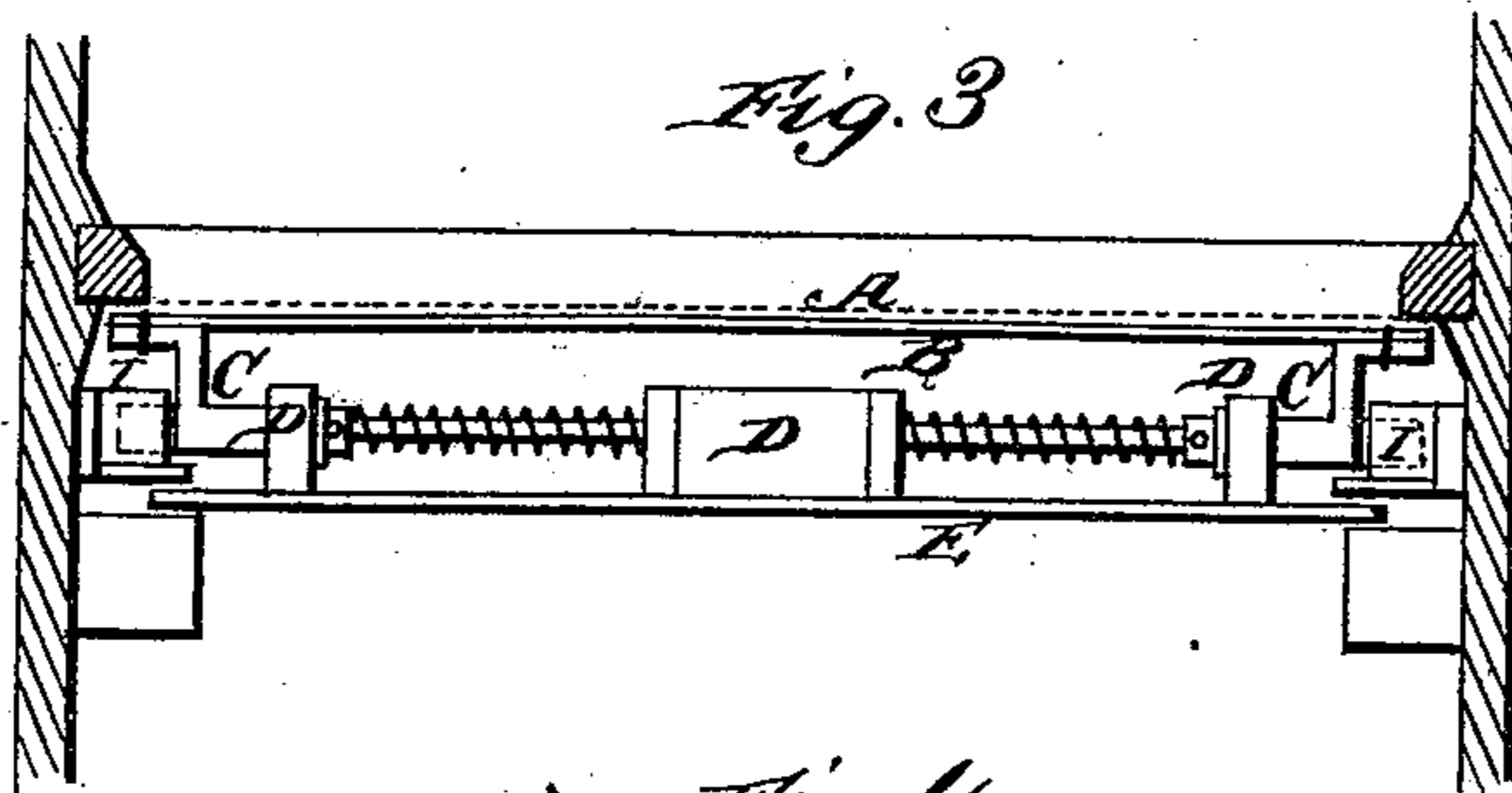
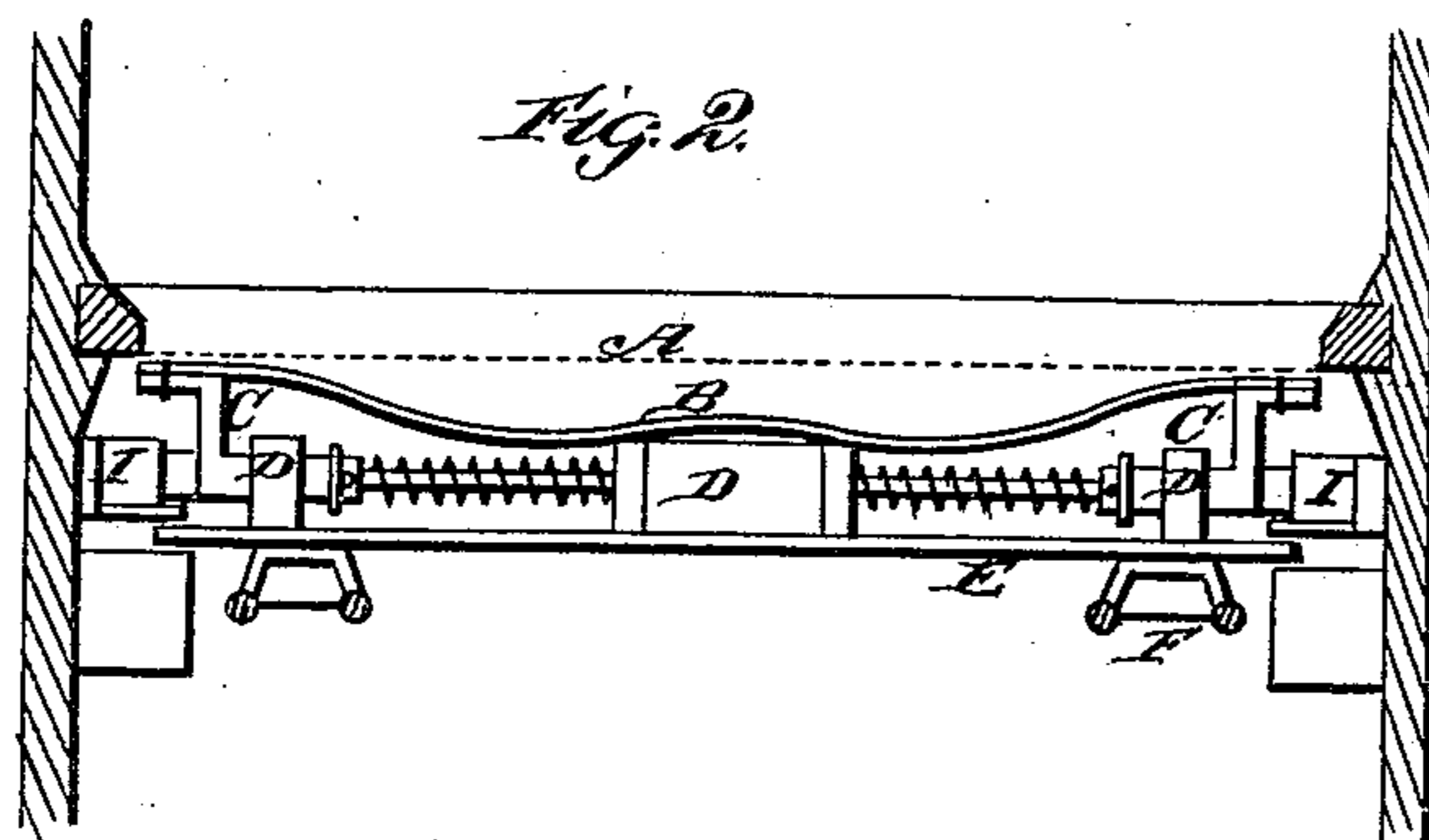
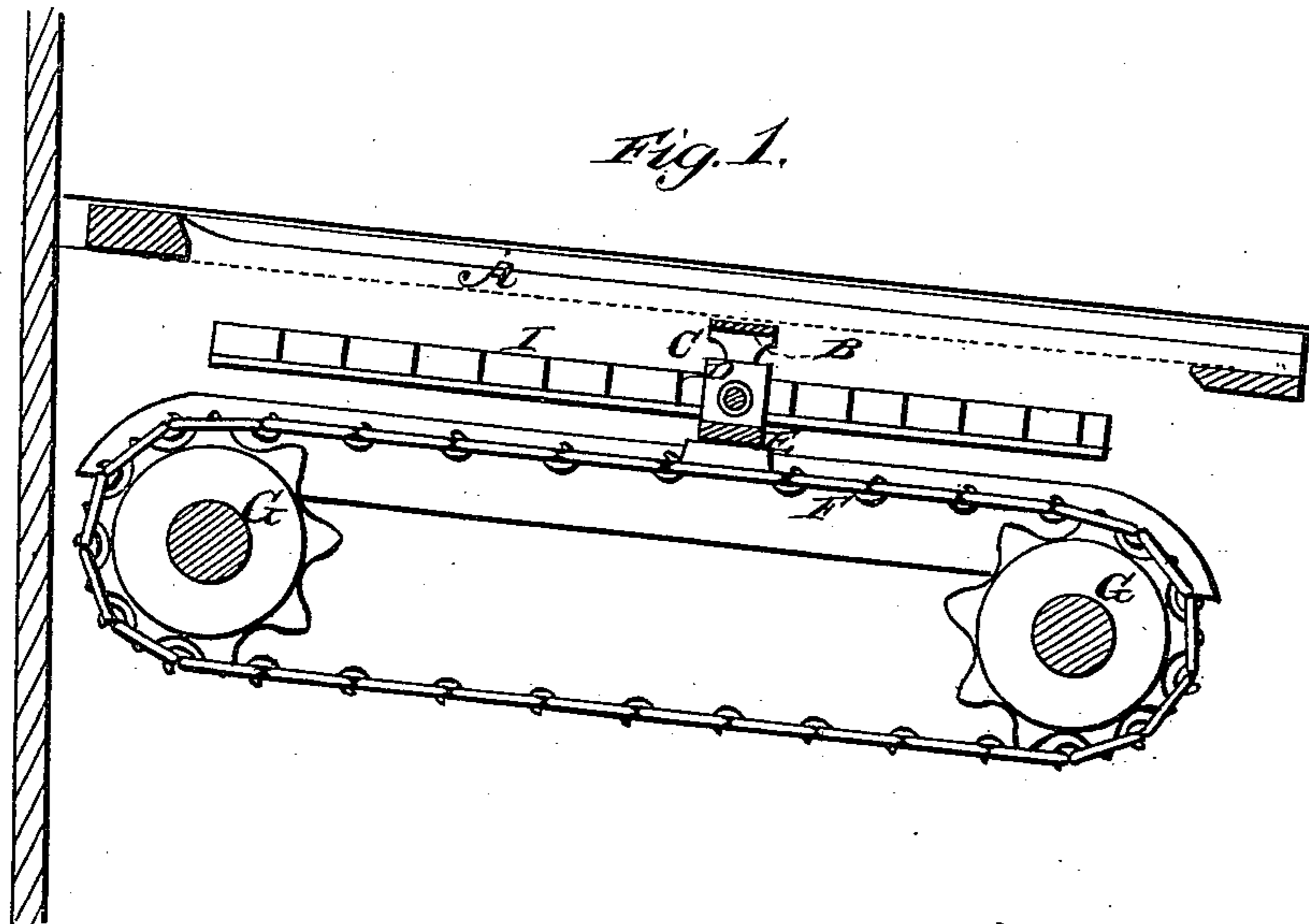


J. B. MARTIN.  
Middlings-Purifier.

No. 228,367.

Patented June 1, 1880.



WITNESSES

*Robert Everett*  
*Chas. G. Bage*

INVENTOR,

*James B. Martin.*  
*Gilmore Smith & Co.*  
ATTORNEYS

# UNITED STATES PATENT OFFICE.

JAMES B. MARTIN, OF NEWARK, OHIO.

## MIDDLINGS-PURIFIER.

SPECIFICATION forming part of Letters Patent No. 228,367, dated June 1, 1880.

Application filed December 13, 1879.

*To all whom it may concern:*

Be it known that I, JAMES B. MARTIN, of Newark, in the county of Licking and State of Ohio, have invented certain new and useful Improvements in Middlings-Purifiers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a longitudinal section of my middlings-purifier. Fig. 2 is a sectional plan view of the same, and Fig. 3 is a detail view; and Fig. 4 is also a detail, in plan, of certain parts.

My invention relates to means for clearing the meshes of the bolting-cloth in middlings-purifiers; and it consists in flexible whippers arranged to act upon the cloth at intervals, as hereinafter fully described, and particularly pointed out in the claims.

In the annexed drawings, A designates the screen through which a current of air is induced by an exhaust or blower by the usual fan.

B designates my whipper, which consists of a flexible strap, preferably of leather, although fabric might be employed. In practice, however, I find leather to be the best material for the purpose, since it combines the requisite elements of toughness, flexibility, and strength to endure the strain which it will be subjected to by continuous vibrations. This whipper is secured at its end to sliding rods C, which work in bearings D, and which are thrown outward by spring-pressure.

The bearings of said rods are made or secured upon a bar, E, which is fastened to endless belts or chains F. The travel of these chains

is attained by sprocket-wheels G, the teeth of which engage with the open links of the chains or belts. The spring-pressure forces the rods to which the whipper is secured into engagement with rack-bars I, so that as the machine is operated the rods will expand or contract toward each other by reason of contact with the rack-bars, hence causing alternate tension and relaxation of the whipper. The sudden tension upon the same induces a vibration, whereby it will strike against the bolting-cloth, thus effectively beating it and preventing caking of the meal. This enables me to dispense with brushes, which wear the cloth, and with knockers, which act too generally to relieve particular places upon the cloth.

The period at which the whipper strikes the cloth is so short that it will not interfere with the constant action of the air-blast, which prevents the fine light impurities from passing through the cloth with the middlings as with a brush.

What I claim is—

1. In a middlings-purifier, the combination, with a vibrating shaker, of a traveling whipper or knocker adapted to intermittently act upon different portions of the shaker, substantially as and for the purposes set forth.

2. The flexible whipper B, in combination with a screen, rods C, endless chains F, rack-bars I, and wheels adapted to cause the travel of the chains and whipper, as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JAMES B. MARTIN.

Witnesses:

THEO. MUGEN,  
WM. H. ROWE.