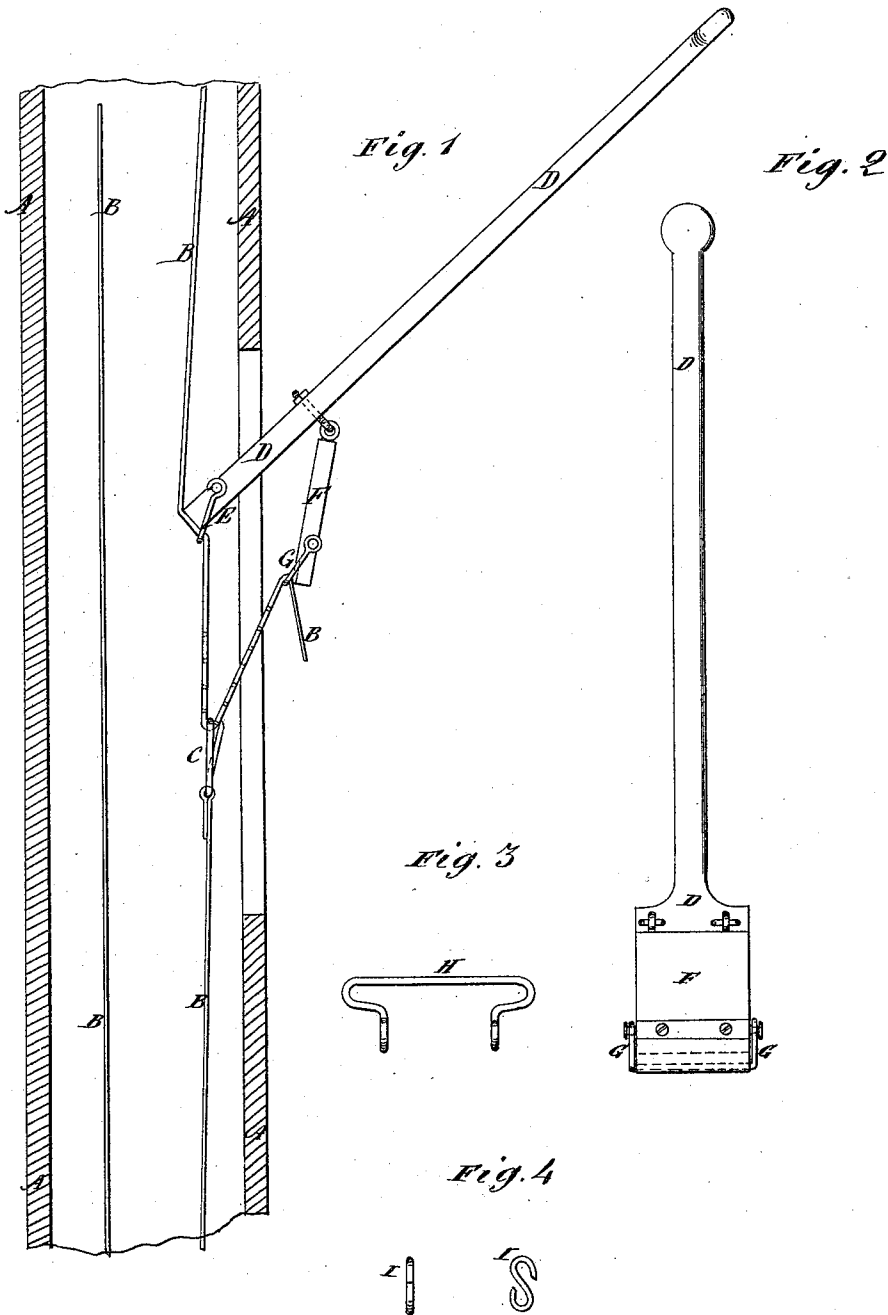


P. H. ZACHARIAS & J. M. SWIFT.

TIGHTENERS FOR ELEVATOR-BELTS.

No. 173,252.

Patented Feb. 8, 1876.



WITNESSES:

C. Newell
J. Goethals

INVENTOR:

P. H. Zacharias
BY *J. M. Swift*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

PETER H. ZACHARIAS AND JOHN M. SWIFT, OF ANN ARBOR, MICHIGAN.

IMPROVEMENT IN TIGHTENERS FOR ELEVATOR-BELTS.

Specification forming part of Letters Patent No. 173,252, dated February 8, 1876; application filed December 27, 1875.

To all whom it may concern:

Be it known that we, PETER H. ZACHARIAS and JOHN M. SWIFT, of Ann Arbor, in the county of Washtenaw and State of Michigan, have invented a new and useful Improvement in Tighteners for Elevator-Belts, of which the following is a specification:

Figure 1 is a side view of our improved belt-tightener. Fig. 2 is a front view of the same. Fig. 3 represents a modified form of the clevis or loop. Fig. 4 is an edge view and a side view of the extension-hooks.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved implement for tightening elevator-belts in flour-mills, and for other similar uses, which shall be simple in construction, convenient in use, and effective in operation, enabling a single man to tighten a belt, which heretofore has required two or three, and with less liability to injure the belt.

The invention will first be described in connection with drawing, and then pointed out in the claim.

A represents the elevator-box; B, the elevator-belt, and C the buckle. D is a lever, the forward end of which is made wide, and to its side edges, near its end, are attached two pins, upon which are hooked the ends of the clevis or loop E, which is made of such a length as to clamp the belt against the end of the lever. F is a swinging clamp, the upper edge of which is hinged to the lever D, at a little distance from its end, by eyebolts or other suitable means. To the side edges of the swinging clamp F, near its free end, are attached two pins, upon which are hooked the ends of the clevis or loop G, which is made

of such a length as to clamp the belt between it and the end of the said swinging clamp F.

In using the device, remove the clevis E, pass it around the belt B a little above the buckle C, and again hook it upon its pins, with the handle of the lever D hanging downward. Then pass the tongue of the belt B through the clevis G, and raise the handle of the lever D, which will draw the tongue of the belt B through the buckle C, and allow the buckle C to be buckled into the next holes. If the belt is not tight enough the free end of the lever D is lowered, the clevis E is slipped up upon the belt B, and the operation is repeated.

In case the belt B is wider than the lever, clevises H, with side extensions, as shown in Fig. 3, may be used.

In case the belt is not long enough for its tongue to be grasped by the clevis G of the swinging clamp F, the S-hooks I are used, which are hooked into the clevis G and into the buckle C, and the belt is tightened until the end of the tongue of the belt B can be passed through the buckle C and be buckled.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

The belt-tightener consisting of a lever, D, having an end clevis, E, and a swinging bar, F, having clevis G, to enable it to tighten a belt provided with a buckle at one end and a series of holes at the other, in the manner specified.

PETER H. ZACHARIAS.
JOHN M. SWIFT.

Witnesses:

RICHARD BEAHAN,
FRANK R. BEAHAN.