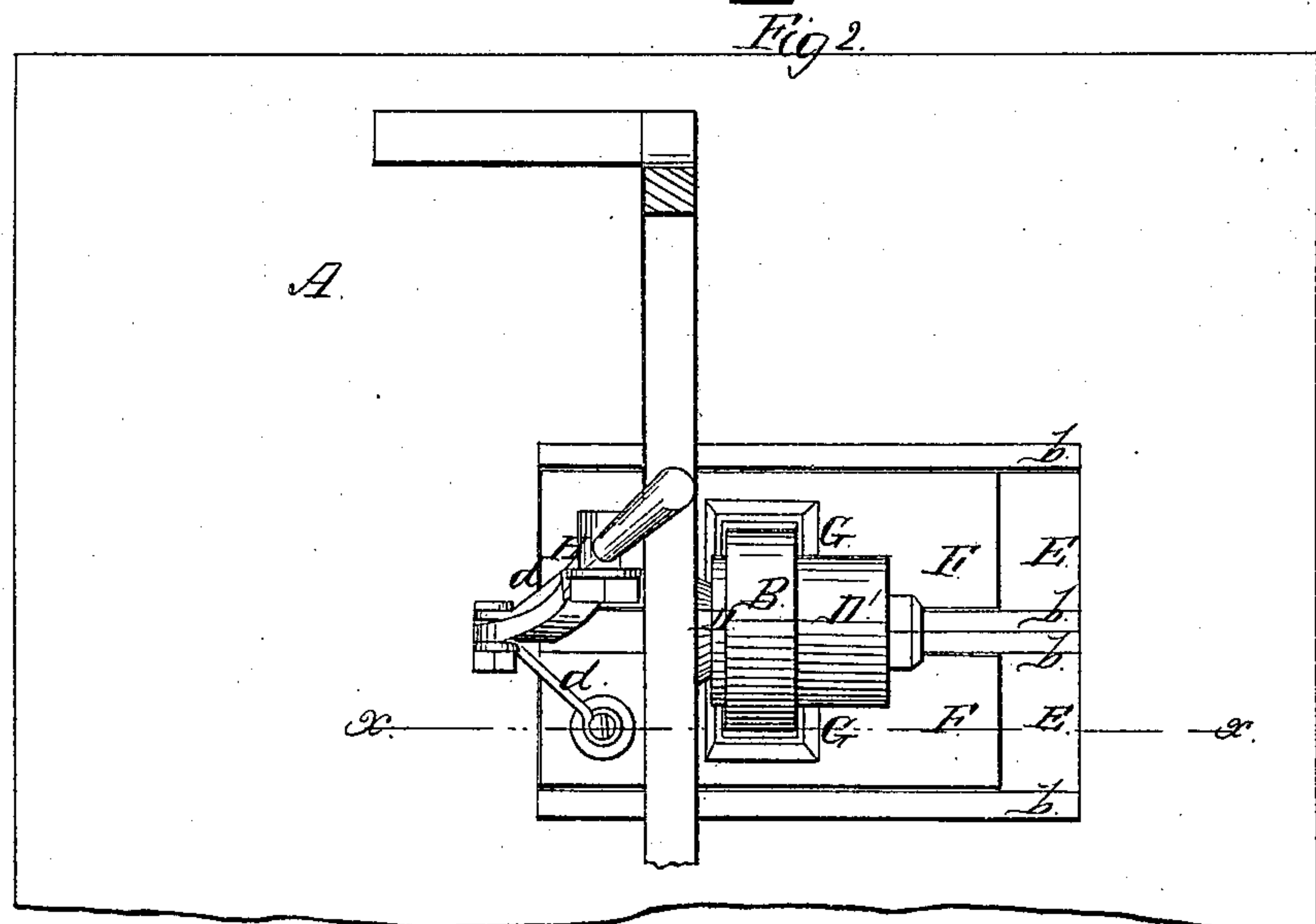
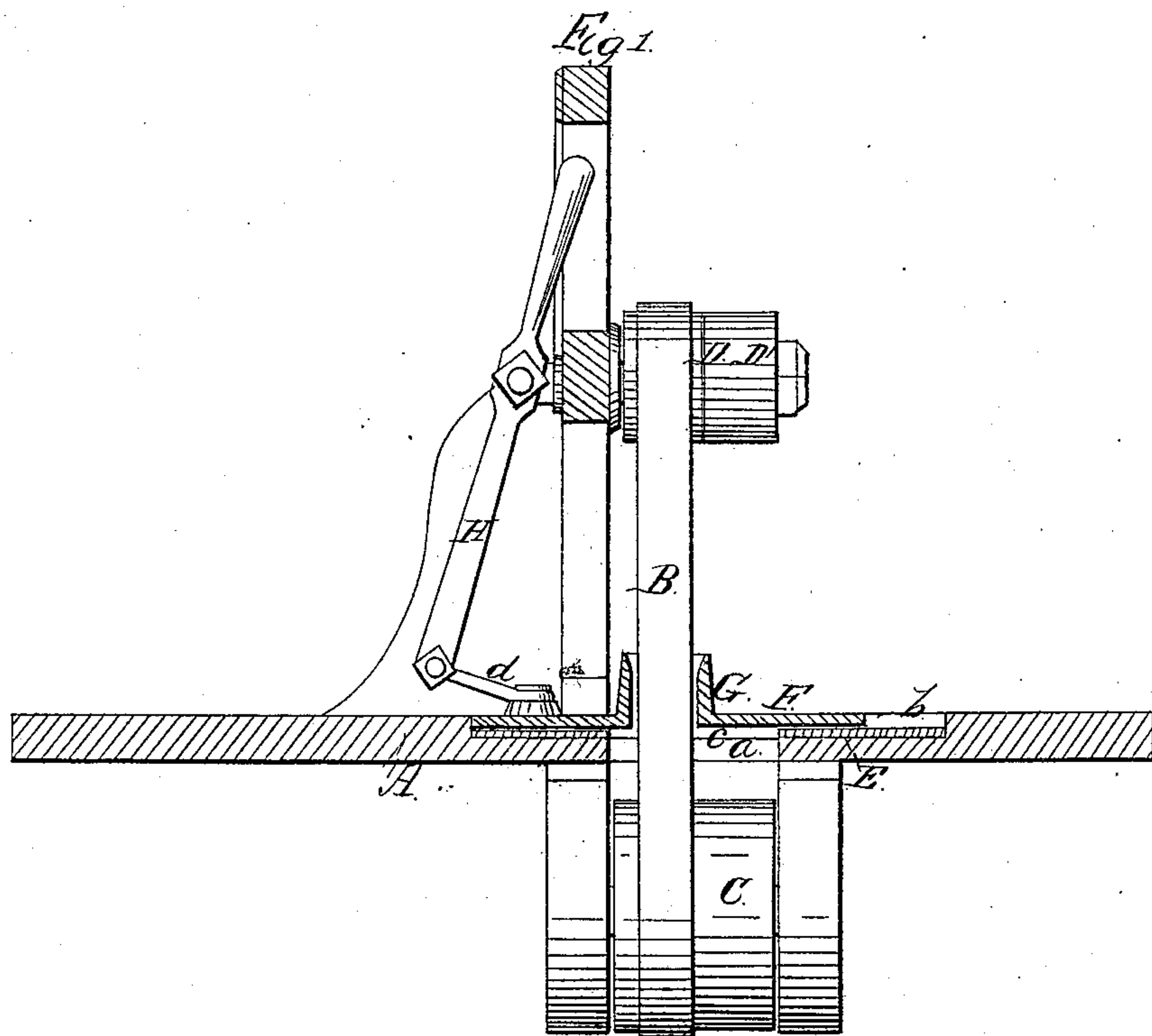


# T. P. Rodgers, Belt Shifter.

N<sup>o</sup> 39,956.

Patented Sep. 15, 1863.



Witnesses  
J. W. Corbin  
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per *Wm H*  
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# UNITED STATES PATENT OFFICE.

TOPPAN P. RODGERS, OF TAUNTON, MASSACHUSETTS.

## IMPROVEMENT IN BELT-SHIPPERS.

Specification forming part of Letters Patent No. 39,956, dated September 15, 1863.

*To all whom it may concern:*

Be it known that I, T. P. RODGERS, of Taunton, in the county of Bristol and State of Massachusetts, have invented a new and Improved Belt-Shipper; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a vertical section of my invention, taken in the line *x x*, Fig. 2; Fig. 2, a plan or top view of my invention.

Similar letters of reference indicate corresponding parts in the two figures.

The object of this invention is to obtain a belt-shipper which will protect a belt passing through a floor—that is to say, prevent chips, waste, and any substances that may be upon the floor passing through the openings in the floor through which the belt passes, and at the same time admit of the floor being flooded with water, if necessary, without having the water pass down through the belt-holes.

To enable those skilled in the art to fully understand and construe my invention, I will proceed to describe it.

A represents a floor, and B a belt, which passes through openings *a* therein, around a driving-pulley, C, underneath the floor, and around a pulley, D, on the machine to be driven, above the floor. This belt may be arranged and applied in the usual way, and therefore does not require a minute description. The openings *a* in the floor, one of which is shown in Fig. 1, are of course equal in length to twice the width of the belt, in order to admit of the latter being shifted from the working-pulley D upon the idle-pulley D', and vice versa, and with the ordinary belt-shippers these openings are exposed, and any substances which may be on the floor A are liable to pass through them and fall between the belt B and the pulley C, to the great injury of the former. This difficulty is obviated by my invention, as follows: I insert in the floor A two cast-iron plates, E E, each of which has an upright flange, *b*, at each side of it, to serve as guides for plates F. These plates are allowed to slide freely on the plates E E, and each plate F has a box, G, cast with it, of sufficient dimensions to admit of the belt B

passing through it without touching or rubbing against its inner surface, no unnecessary or extra space being allowed. The interior of these boxes G, therefore, will be just one-half the dimensions of the openings *a* in the floor A, and the boxes extend a suitable distance above the floor. The plates E are provided with holes *c*, which are equal in dimensions to the holes *a* in the floor. Each plate F is connected by a rod, *d*, to a lever, H, by which said plates F may be moved to cast the belt B from the pulley D upon the pulley D', and vice versa. The plates E E and F F are made or cast separately, in order to admit of them being placed nearer together or farther apart, to suit the width of the space between the belt, said space varying considerably, owing to the diameter of the pulleys over which the belt passes, and to the distance of the pulleys from the floor.

From the above description it will be seen that the boxes G, in consequence of being only of such dimensions as to admit of the belt B passing through them, will prevent substances which are on the floor or may fall upon the same from passing through; and it will also be seen that the floor may be flooded with water to a height equal or nearly equal to the tops of the boxes without admitting the water to pass through the belt-holes.

I would remark that the lever H may in certain cases be made to act upon the belt above the plates F, an ordinary shipper being used, for the plates F will move with the belt.

I would further remark that the invention may be applied to cross belts equally as well as to straight belts.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The boxes G (one or more) connected to or cast with sliding plates F, fitted between suitable guides arranged on plates E, or otherwise, in such a manner as to admit of the boxes G, as the belt is shifted, working over the belt-openings *a* in the floor, substantially as and for the purpose herein specified.

T. P. RODGERS.

Witnesses:

JOHN HOLLAND,  
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