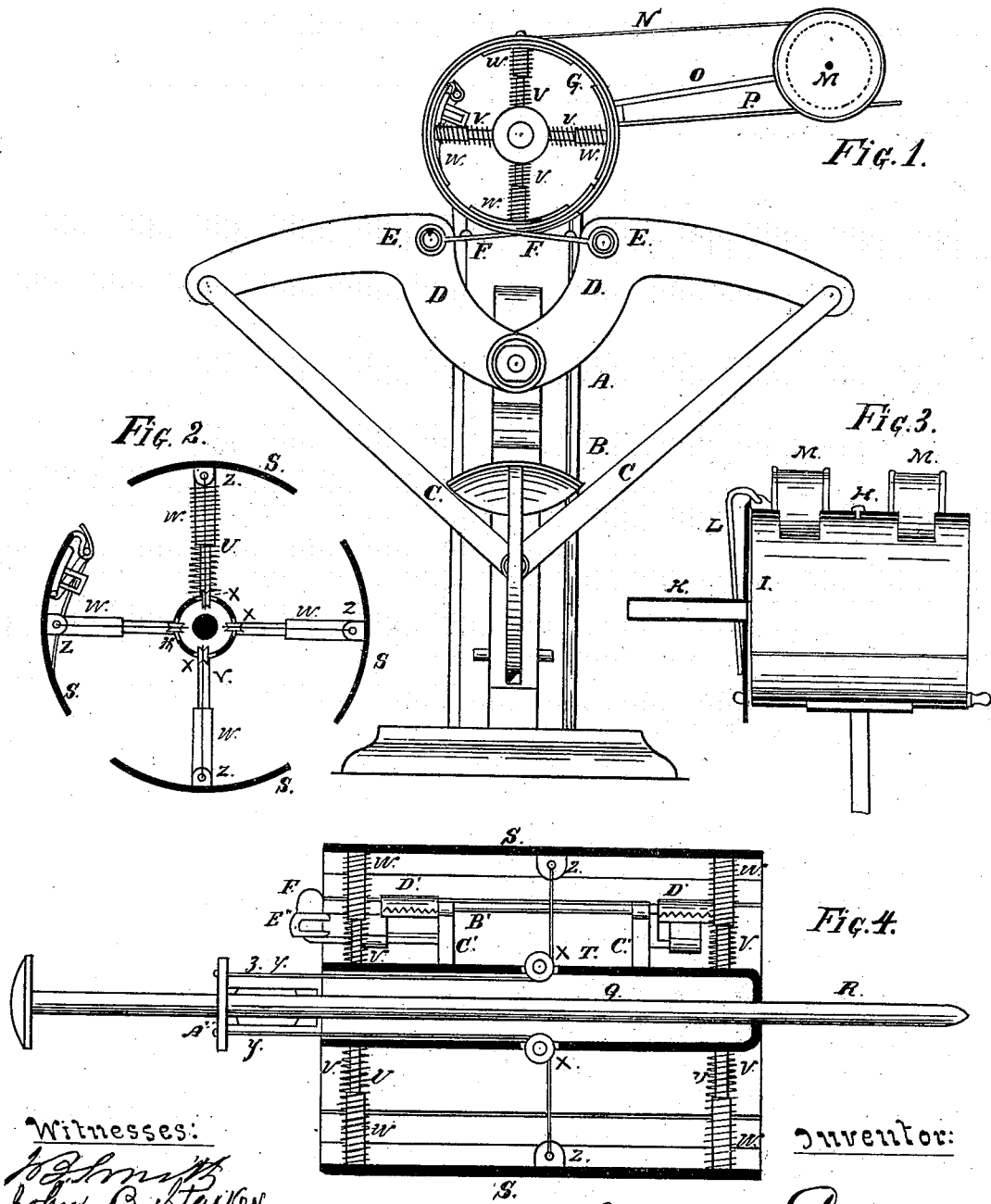


E. DETWILER.
Cigar-Bundlers.

No. 196,520

Patented Oct. 30, 1877.



Witnesses:
John B. Stalker

Inventor:
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UNITED STATES PATENT OFFICE.

EMANUEL DETWILER, OF MILWAUKEE, WISCONSIN.

IMPROVEMENT IN CIGAR-BUNDLERS.

Specification forming part of Letters Patent No. 196,520, dated October 30, 1877; application filed June 11, 1877.

To all whom it may concern:

Be it known that I, EMANUEL DETWILER, of Milwaukee, in the county of Milwaukee, in the State of Wisconsin, have invented certain Improvements in Cigar-Bundlers, of which the following is a specification:

The object of my invention is to provide a device for bundling cigars, of which the following is a description.

Figure 1 is a front view of my invention. Fig. 2 is a cross-sectional view of a contracting and expanding apparatus; Fig. 3, a side sectional view of the contracting and expanding apparatus for arranging the tape with which the bundles are tied; and Fig. 4, a side sectional view of that portion of the machine by which the cigars are squeezed together into bundles.

In the drawing, A is the frame of the machine; B, a treadle; C C, connecting-rods; D D, levers by which a portion of the machine is contracted for the purpose of squeezing the cigars into a bundle. E E are pins in levers D D, to which the two parts of the squeezing apparatus F F are attached. G is a piece of sheet metal inside the squeezing apparatus, which is held in place by a pin, H, which passes through the squeezing apparatus into the piece of sheet metal G, holding them together. I is the back, head, or end of the squeezing apparatus; K, a hollow tube or shaft projecting out from the center of the head I for the end of shaft R to pass into. This projecting tube K will hold the shaft R of the contracting and expanding apparatus in the center of the squeezing apparatus F F. L is a spring the lower end of which is secured to the head I, and the upper end hooking over the top of the head I, and secured to the outside of the squeezing apparatus. This spring is to hold the head I, which is loose, up to the end of the squeezing apparatus. M are spools on which the tape is rolled. N is the tape passing from the spool M to the top of the squeezing apparatus, the ends of the tapes being secured in the jaws D' of one of the segments of the contracting and expanding apparatus, for the purpose of being carried round inside of the squeezer. O is a support for the spools M, one end of it being secured to the outside of the squeezer. P is a spring

secured at one end to the squeezer, and the other end presses against the tape rolled on the spool M, to keep the tape at suitable tension. Q is the contracting and expanding apparatus. R is the shaft of the contracting and expanding apparatus. S S S S are segments of the rim of the contracting and expanding apparatus. T is a center cylinder of the contracting and expanding apparatus. U U U U are spiral springs round the spokes of the contracting and expanding apparatus. V are short spokes projecting out from the cylinder T, and are solid. W are hollow spokes projecting from the segments S S S S, into which the solid spokes V pass, and the spiral springs U are round the spokes and keep the rim of the contracting and expanding apparatus expanded. X X are sheaves secured to the cylinder T, under which run cords Y Y Y Y, one end of said cords being secured to ears Z Z Z Z attached to the inside of segments S, and the other end of the cords being attached to slide A' on shaft R. B' is a bar on one of the segments S, which has jaws at each end of the same. C' C' are springs, which press the jaws of bar B' up to the saw-edged pieces D' D'. These jaws are for the purpose of holding the ends of the tapes, so that, when the contracting and expanding apparatus is turned, the tapes will be carried round with it, and form a circle round the same, so that, when the contracting and expanding apparatus is contracted and taken out, the tapes will remain. E' is a piece of metal secured on the end of the segment to which bar B' is attached.

Operation: The contracting and expanding apparatus is placed in the squeezer, and the ends of the tapes placed in the jaws D', and the contracting and expanding apparatus is turned round, and the ends of the tapes are carried round with it until they come opposite openings in the top of the squeezer, when the jaws D' are opened, and the ends of the tape taken out, and the tape pulled out long enough to tie. The slide A' is taken hold of, and the thumb placed on the end of shaft R, and the slide A' pulled on, the thumb holding the shaft, so that the cords Y Y Y Y will pull on and contract the segment S, which will make the circle of the contracting and expanding apparatus smaller in diameter, when it can be

taken out, leaving the tape in rings inside of the squeezer, when cigars enough for a bundle may be placed in the squeezer, inside of the rings formed by the tapes. Then place the foot on the treadle B, and press down on the same, which will draw on rods C C, the lower ends of which are secured to the treadle, and the upper ends to the outer ends of levers D D, the inner ends of said levers being secured to the frame A by pins on which the levers work, and the ends of the squeezer, crossing each other, are secured to the pins E E, at a point between the ends of the levers secured to the frame and the center ends of the levers, where the rods C C are attached to the levers, which will contract the squeezer and hold the cigars in a tight bundle. The tapes are then tied round the cigars and are cut. Then light up on the treadle, and take the bundle out, when

the same operation may be gone through with again.

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

1. The combination of treadle B, connecting-rods C C, contracting-levers D D with the squeezer F F, connected to levers D D, substantially as specified.

2. Contracting and expanding apparatus Q, consisting, essentially, of shaft R, segments S, cylinder T, springs U, spokes V W, cords Y, and slide A, substantially as described.

3. Squeezer G and F, in combination with contracting and expanding apparatus Q, substantially as specified.

EMANUEL DETWILER.

Witnesses:

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