May 12, 1931. M. COTTE 1,804,916

MACHINE FOR PRODUCING TAPE LOOPS

Filed Feb. 21, 1930

Fig. 1

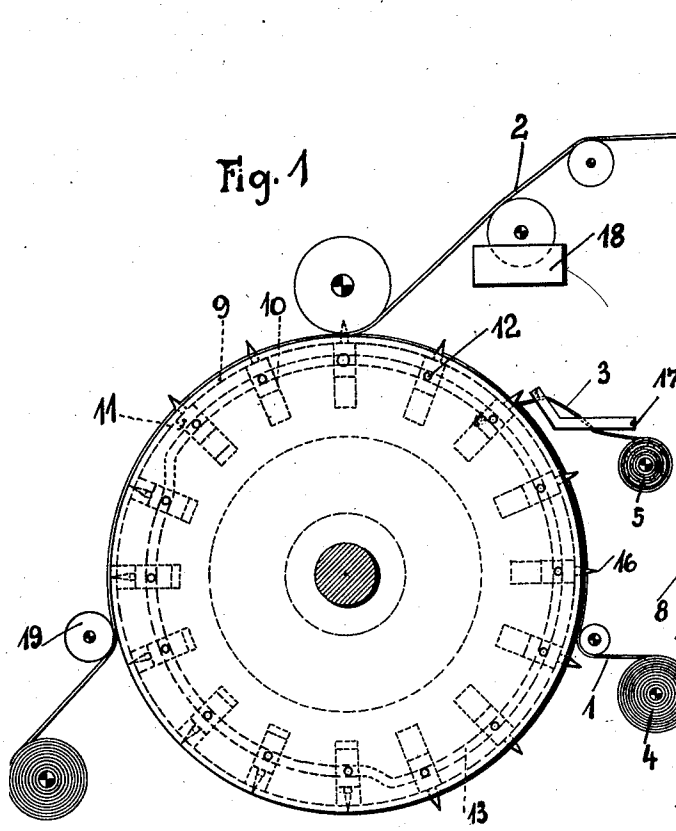
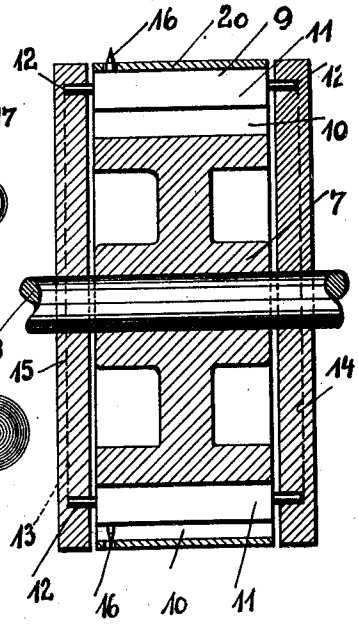


Fig. 3



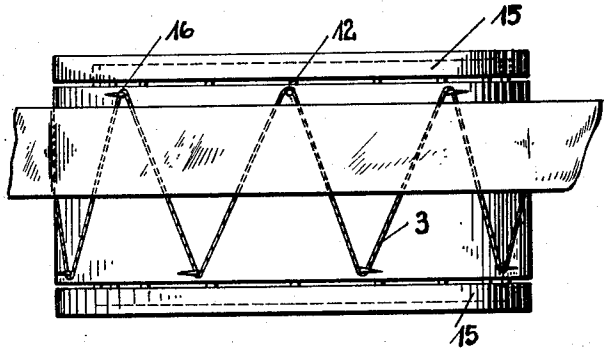


Fig. 2

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MACHINE FOR PRODUCING TAPE LOOPS

Application filed February 21, 1930, Serial No. 430,438, and in Germany February 22, 1929.

The present invention relates to a machine for producing tape loops for suspending adhesive fly paper, pictures and the like, the tape from which the loops are made being interposed between two strips of paper.

The machine consists chiefly of a drum wherein two rows of pins are arranged so as to be radially movable. By means of a stationary curved path the pins are temporarily moved outwardly over the circumference of the drum, at which time an endless web of paper is fed to and placed on the drum, an endless tape put around the pins in serpentine fashion by a thread guide moved axially to the drum, and finally a second web of paper covered with adhesive substance is united with the tape and the first web of paper, whereupon the pins are withdrawn and the finished tape is removed.

One embodiment of the invention is illustrated in the accompanying drawing, in which Figure 1 is a side view; Fig. 2, a top view; and Fig. 3 a vertical section of the features of the invention.

Referring to the drawing, Fig. 1 discloses the arrangement and guiding of the two paper webs 1 and 2 and of the tape 3, the webs and the tape being unwound, respectively, from the reels 4, 5 and 6.

The three webs are fed to a drum 7 secured to a shaft 8 and provided at the periphery 9 with the radial chambers 10 wherein radially displaceable blocks 11 are arranged which engage with lateral pins 12 movable in cam grooves 13 in the sides 14 of the two cams 15 which are fixedly positioned laterally of the drum 7. Each block is provided with an outwardly extending pin 16, alternately on the right and left end, so that the pins form two circular rows. The drum is fitted with a casing 20 covering the radial chambers and provided with openings for the passage of the pins 16. The cam grooves 13 are shaped so that the blocks 11 are displaced radially during the rotation of the drum 7, that is, they carry one outwardly and one inwardly at each rotation of the drum. When the blocks reach their outermost limit at the circumference of the drum, the pins project beyond the periphery of the casing 20 so that the drum discloses at a portion of its circumference the projecting pins while the other portion remains perfectly smooth.

The machine functions as follows: The web 1 is fed to the drum over a guide roll, the tape 3 is moved by a lever 17, having a guide eye, from one side of the drum to the other to pass around the pins 16 in zigzag fashion, and then the web 2, previously glued by a suitable gluing device is put on. While this is going on, the pins 16 extend outside the chambers 10, but as soon as the three webs 1, 2 and 3 are united, the pins are withdrawn to release the tripartite loop tape which can then be passed over a guide roll 19 and fed to a knife or shears which cut off the loops.

I claim:—

1. A machine for producing tape loops consisting of tape interposed between two strips of paper for suspending adhesive fly paper, pictures and the like, comprising a drum, two rows of radially movable and withdrawable pins arranged in the said drum, a stationary curved path adapted to move said pins outwardly over the circumference of said drum, means for feeding an endless web of paper to said drum, a thread guide adapted to be moved to and fro axially to the drum and to place an endless tape in serpentine fashion around the said pins, and means for uniting a second web with the said tape and first web, the feeding and uniting of the webs and tape taking place while the said pins are extended.

2. A machine for producing tape loops consisting of a tape interposed between two webs of paper for suspending articles, comprising a drum having radial chambers at its circumference, blocks slidable in said chambers, pins fixed near the opposite ends of each alternate block, pintles set in the ends of each block, two cams having grooved sides disposed laterally of said drum to engage the pintles of said blocks whereby said fixed pins are projected and retracted, means for feeding an endless web of paper to said drum, a thread guide adapted to be moved across the face of the drum and to place an endless tape in serpentine fashion around said fixed

pins, and means for uniting a second web of paper with said tape and first web, the feeding and uniting of the webs and tape taking place while said fixed pins are projected outwardly.

3. A machine for producing tape loops consisting of a tape interposed between two webs of paper for suspending articles, comprising a drum having radial chambers at its circumference, blocks slidable in said chambers, pins fixed near the opposite ends of each alternate block, a cylindrical casing enveloping the face of said drum to cover the chambers therein, said casing having openings through which said fixed pins may pass, pintles set in the ends of each block, two cams having grooved sides disposed laterally of said drum to engage the pintles of said blocks whereby said fixed pins are projected and retracted, means for feeding an endless web of paper to said drum, a thread guide adapted to be moved across the face of the drum and to place an endless tape in serpentine fashion around said fixed pins, and means for uniting a second web of paper with said tape and first web, the feeding and uniting of the webs and tape taking place while said fixed pins are projected outwardly.

In testimony whereof I have affixed my signature.

MARIE COTTE.