Nov. 5, 1929. J. OLSEN 1,734,643

CUTTER ATTACHMENT FOR PAPER TAPE MACHINES

Filed Feb. 20, 1928

Fig. 1.

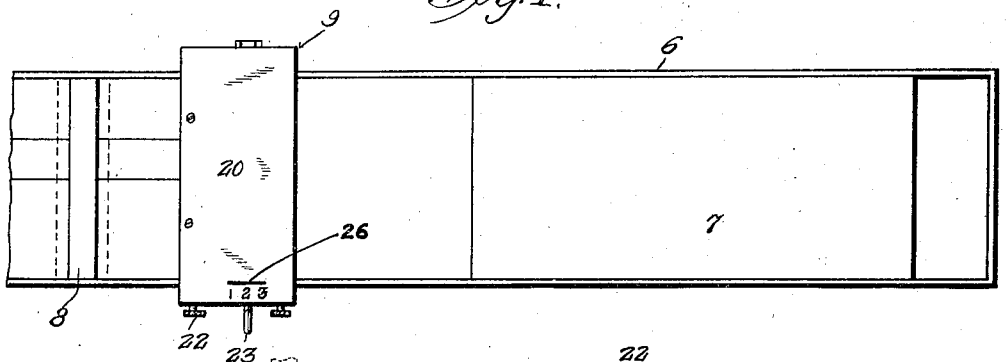
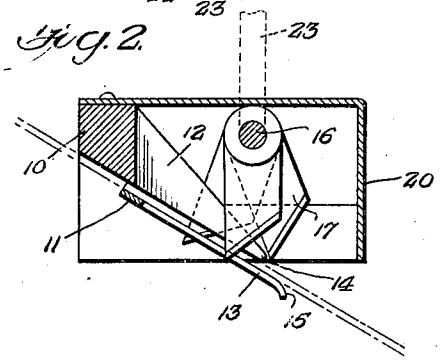


Fig. 2.



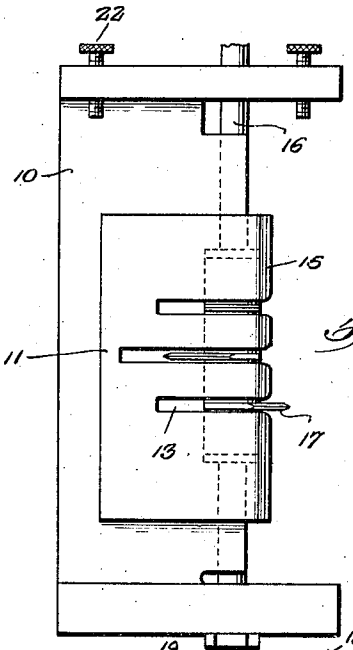
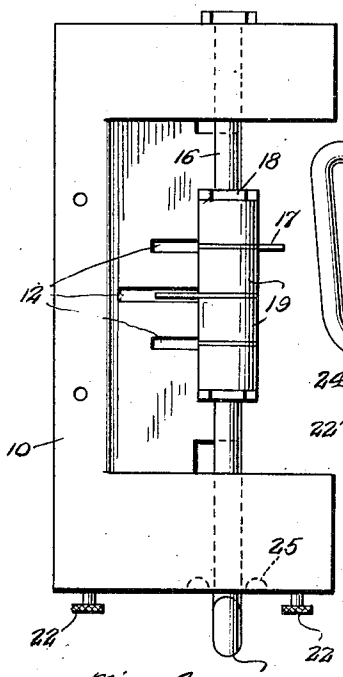


Fig. 3.



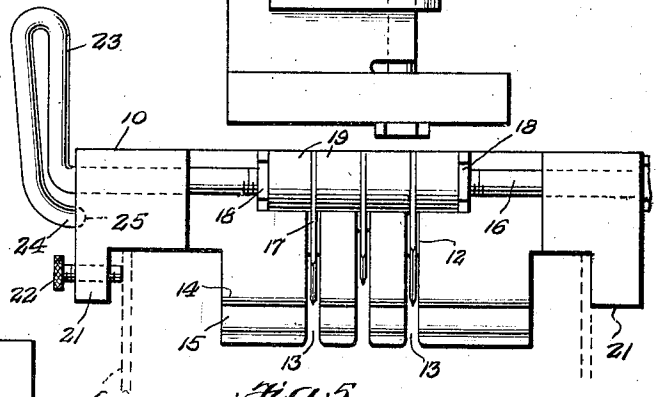


Fig. 5.

Fig. 4.

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UNITED STATES PATENT OFFICE

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CUTTER ATTACHMENT FOR PAPER-TAPE MACHINES

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The present invention consists of a cutter attachment for paper tape machines, the object of which is to equip the machines with a tape incising mechanism which is simple in construction and may be expeditiously applied to machines of standard construction.

Another object of the invention is to provide a cutter attachment embodying a series of cutting elements which may be used singly or in multiple to longitudinally incise the tape in two or more parts, at the option of the user.

A further object of the invention is to provide a cutter attachment which is compact and which is entirely independent of the paper tape machine per se, and consequently can be readily removed when desired, the construction of the attachment and its manner of application to the tape machine being such that it will in no way interfere with the normal operation of the latter.

Other objects of the invention will be apparent from the following description of the present preferred form of the invention, taken in connection with the accompanying drawings, wherein

Figure 1 is a top plan view of a cutter attachment constructed in accordance with the present invention;

Figure 2 is a transverse sectional view of the cutter attachment per se;

Figure 3 is a bottom plan view of the cutter attachment per se, showing the handle fragmentarily;

Figure 4 is a top plan view of the cutter, showing the casing removed therefrom; and

Figure 5 is an end elevational view of the cutter with the casing removed.

In the drawings, in order to illustrate the application of the present invention, a paper tape cutting machine 6, of standard construction, is illustrated in Figure 1, in which a tape supply roll 7 is mounted in spaced relation to presser and moistening rollers 8. The cutter attachment constructed in accordance with the present invention is generally designated 9 and is mounted on the paper tape machine between the supply roll 7 and the moistening roller 8.

The cutter attachment embodies upper and lower guard elements 10 and 11 respectively, the former of which consists of a block-like body provided with a series of slots 12, through which the cutters are movable in a manner hereinafter set forth. The guard 11 consists of a plate having slots 13 therein which correspond to the slots 12 and through which the cutters also move in a manner hereinafter set forth. The ends of the guards 10 and 11 adjacent the supply roll 7 are rounded to facilitate insertion of the tape therebetween. The rounded terminal of the guard 10 is indicated at 14, while the rounded terminal of the guard 11 is indicated at 15. The rounded terminal 15 of the guard 11 extends appreciably beyond the rounded terminal 14 of the guard 10 to provide a table which initially receives the free end of the tape which is fed from the supply roll.

The cutter attachment further embodies a rock shaft 16, the ends of which extend through and are revolvably mounted in the terminals of the upper guard element 10 adjacent the top of the latter. The rock shaft has fixedly secured thereto a series of knife elements or blades 17 which may be of any desired configuration. It is preferred however, to obliquely dispose the cutting edges of the blades in order to more effectively cut the tape as it is pulled through the cutter attachment in the manner shown to advantage in Figure 2. Preferably the blades 17 are arranged in staggered relation on the shaft and are fixedly held in a predetermined position by jamb nuts 18 which impinge against spacing washers 19. The washers 19 are mounted on the rock shaft 16 and are interposed between the blades 17 and the jam nuts 18 in the manner illustrated to advantage in Figure 5. The rock shaft 16 is equipped with screw threads with which the nuts 18 are engaged to prevent displacement of the washers. It is of course understood that any number of blades may be employed. In the present instance, merely for sake of illustrating the application of this invention, I have shown three blades, since in the practical embodiment of the invention it is customary to incise the tape in not more than three strips.

The cutter attachment further includes a

shell or casing 20 which is engaged with the guard block 10 and houses both guards, rock shaft and blades 17 as illustrated to advantage in Figure 2. Consequently, the shell or casing serves not only to prevent the hand of the operator from coming in contact with the blades, but additionally may be used as a rest or support for the hand while the tape is being drawn through the machine.

The ends of the guard 10 through which the rock shaft 16 extends are extended to provide depending flanges 21 which are adapted to extend outside of the opposite sides of the paper tape machine 6. One of the flanges is adapted to snugly engage one side of the machine while set screws 22 are detachably mounted in the opposite flange and are adapted to impinge against the opposite side of the machine to thereby clamp the attachment to the machine.

In order that the desired cutting blade or blades may be urged into an operative position, one end of the rock shaft 16 is extended beyond one end of the guard block 10 and reversely folded to provide a handle 23, the free end of which projects inwardly toward the guard block to provide a keeper 24 which is adapted for engagement in any one of a series of recesses 25, which are formed in the guard block 10. The handle 23 is of sufficient length that when it is moved into a vertical position, the upper end thereof will project appreciably beyond the top of the cutter attachment. The top of the cutter attachment is provided with suitable indicia 26, which in the present instance, is shown to consist of numerals, which may be indicative of the number of cutting blades which are in an operative position, or the number of strips in which the tape is to be incised, at the option of the manufacturer. It is to be understood, however, that the manipulation of this handle imparts movement to the cutting blades so that one or more of them may be moved into an operative position and when desired, the handle may be moved into a neutral position to place the cutting blades in an inoperative position. The keeper 24, due to the inherent resiliency of the handle 23, may be sprung into any one of the recesses 25 in order to hold the desired cutting blade in a fixed position.

In using this device, it is apparent that the flanges 21 of the guard block 10 are permitted to slide over the sides of the paper tape machine at a point intermediate the supply roll and the moistener rolls of the paper tape machine. The attachment is secured from displacement through the medium of the set screws 22 and the tape is first moved between the rounded ends 14 and 15 of the guards 10 and 11 and then advanced beyond the cutter attachment so that the incising of the tape takes place before the latter reaches the moistener rollers. One or more of the cutters may be urged into the slots 12 and 13 of the blocks 10 and 11 respectively, to effect the cutting and are held in position in a manner above described. If desired, the cutters may all be retained in an inoperative position so that the tape may pass freely through the cutter attachment without being operated on. The attachment is relatively flat and compact so as to in no way interfere with the normal use of the paper tape machine. It is of course, to be understood however, that the cutter may be expeditiously removed when desired.

It is furthermore to be understood that various changes may be made in this device in the construction, proportion and arrangement, within the scope of the appended claims.

What is claimed is:

1. An attachment for paper tape machines including a housing engageable with the machine, a shaft mounted to rock therein, a plurality of knives carried by the shaft, coacting guard members provided with registering slots between which a tape is adapted to be passed, and means for securing the shaft in predetermined adjusted positions to bring one or more of the knives through the slots into incising relation with the tape.

2. An attachment for paper tape machines including a housing engageable with the machine, a shaft mounted to rock therein, a plurality of spaced blades each projecting from the shaft along different radii thereof, coacting guard members adapted to guide a paper tape and provided with registering slots, and means for securing the shaft in predetermined adjusted positions to bring one or more of the blades through the slots into incising relation with the tape.

3. An attachment for paper tape machines including a housing engageable with the machine and provided with a plurality of recesses, a shaft mounted to rock in the housing and carrying a plurality of spaced blades each projecting from the shaft along different radii thereof, coacting guard members adapted to guide a paper tape and provided with registering slots, an operating handle associated with the shaft and having a keeper selectively engageable with the recesses to maintain one or more of the blades through the slots and in incising relation with the tape.

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