A. H. ANSTEY.

TOBACCO CUTTING MACHINE.

APPLICATION FILED NOV. 1, 1909.

997,595. **Patented July 11, 1911.**

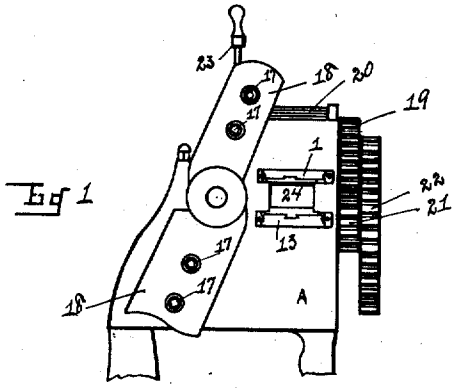


Fig 1

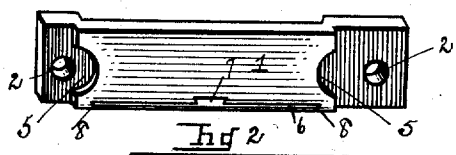


Fig 2

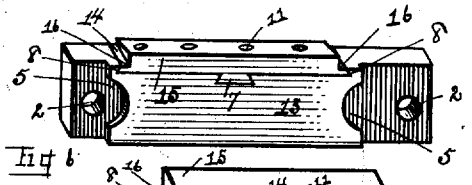


Fig 6

Fig 3

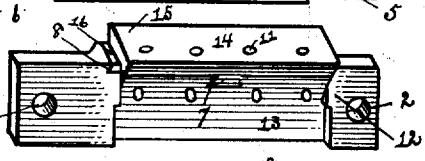
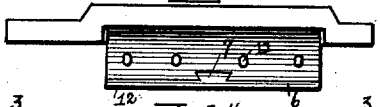


Fig 7



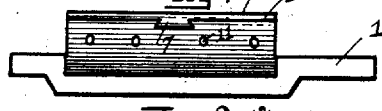


Fig 8

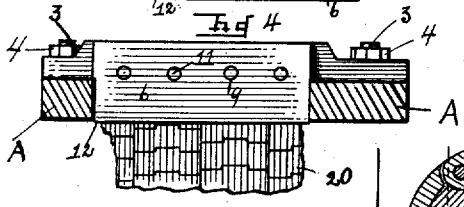


Fig 4

Fig 5

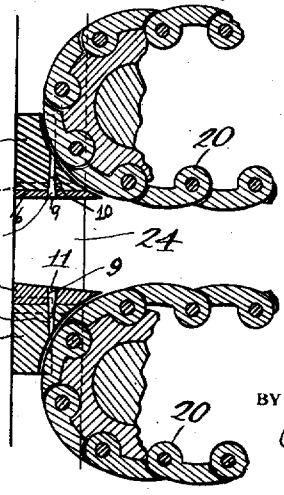


Fig 9

Fig 10.

WITNESSES

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TOBACCO-CUTTING MACHINE.

997,595. Specification of Letters Patent. Patented July 11, 1911.

Application filed November 1, 1909. Serial No. 525,648.

To all whom it may concern:

Be it known that I, ARTHUR H. ANSTEY, citizen of the United States, residing at Utica, in the county of Oneida and State of New York, have invented certain new and useful Improvements in Tobacco-Cutting Machines, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to an improved tobacco cutting machine, such as described in patents to Pease, No. 30929, Dec. 18, 1860; No. 41,637, Feb. 16, 1864; and Krutzsch, No. 402,088, Apr. 23, 1889, and I declare that the following is a full, clear, concise and exact description thereof, sufficient to enable one skilled in the art to make and use the same, reference being had to the accompanying drawings, in which like reference characters refer to similar parts throughout.

Heretofore tobacco cutting machines have been provided with throats made of soft steel, disposed at the smaller end of a tapering passage way, whose upper and lower inclosures are formed by brass chain carriages running on suitable bearings at either end of the passage way, through which the tobacco is congestively carried. The tobacco is prepared before entering this passage way with a dressing which contains a corrosive substance that eats into the steel of the throat. It also has a tendency to pick the brass off from the chain carriages and amalgamate it with the steel throats on their eaten surfaces. The brass deposits on the steel throat piece in a short time become so large that they are broken away by the impact of the oncoming tobacco. In breaking away they leave large perforations in the steel. This amalgamation process in a short time so badly roughens the surface of the throat that the feed of the machine is impeded and as a result, the tobacco fed to the passage way is retarded until there is sufficient pressure against the oncoming product to start it forward in jerks or thrusts and presents it to the cutting knives. This effect of the uneven feed is to destroy the uniform cut of the machine, leaving the finished product with a certain grade of fine cut tobacco mixed with some coarse cut. Not only is the uniform cut of the finished product destroyed but the corroding of the throat of the machine, impeding the advance of the fed tobacco as it does, produces an excessive strain on the machine which impairs its efficiency; the belts slip and unusual care is necessary to keep the machine in proper working order. Particularly is the corrosive effect on the steel throat harmful at that part of the throat which overlaps the chain carriages, where it is necessarily narrow in order to make close fit with the chain carriages. This part is readily eaten away leaving an aperture or crevice for the tobacco to crowd into and in time clog the operation of the machine. My device also contemplates having brass plates dovetailed into the throat pieces in a manner that eliminates any crevices between the plates and the throat pieces for the tobacco to get into.

These improvements are illustrated in the accompanying drawings in which—

Figure 1 is a front elevation of a tobacco cutting machine, showing my improved throat pieces applied thereto; Fig. 2 is a perspective front view of the upper throat piece; Fig. 3 is a perspective rear view of the upper throat piece; Fig. 4 is a top plan of the same; Fig. 5 is a base plan of the same showing the throat piece bolted to the frame in section and parts of the chain carriage approaching the throat piece; Figs. 6, 7 and 8 are respectively similar views to 2, 3 and 4 of the lower throat piece; Fig. 9 is a base plan of the lower throat piece; and Fig. 10 is a section enlarged taken on line *e—e* of Fig. 3, relative parts being added thereto.

The upper throat piece is indicated by 1, having bores 2—2 disposed adjacent the ends on a plane slightly offset from the central portion, through which bores pass suitable bolts 3—3, held by nuts 4—4 to secure the throat piece to the frame A of the machine. Recesses 5—5 in throat piece 1 permit the admission of nuts 4—4 to the plane of the bores. A brass plate 6, which constitutes the most important feature of my device is disposed adjacent the exposed surface of throat piece 1, as shown in Figs. 2, 3, 4, 5 and 10. It is held vertically in the throat piece 1 by dove tail joint 7 and by beveled edges 8—8 which fit into counter apertures in the throat piece. In order to provide against lateral movement of the plate, I make bores 9 in plate 6 to aline with bores 10 in the throat piece 1, into which bores are fitted brass headed plugs 11 slightly tapered at their head portions in order to make adhesive contact with plate 6 when said plugs are driven home, flush with the surface of

plate 6. In order to provide a close fitting joint at that part of the throat piece 1 which meets and projects over the chain carriages, the plate 6 is beveled and continues the central concave surface of throat piece 1 to a keen edge as shown at 12.

Lower throat piece 13 is a duplicate of upper throat piece 1 in many respects and like parts are indicated by like reference characters. There is this difference, however. Plate 14 has a central elevation 15, inclining upwardly toward the front of the throat piece, as shown in Figs. 6 and 10. The elevation 15 forms shoulders 16—16 in order that it may rest in aperture 24 of the throat when assembled. The inclination of plate 14 upward toward the front surface tends to give the tobacco presented at the throat edge some resistance to the downward pressure of the knives which are bolted as at 17—17 to cutting arms 18—18.

In Fig. 1, I have shown upper front roller pinion 19 which actuates the upper chain carriage 20 and lower front roller pinion 21 which actuates the lower chain carriage, not shown. A tooth change gear is represented by 22, and 23 is a clutch lever.

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

1. In a tobacco cutting machine of the character described, the combination of a frame having a throat, two endless chains adapted to move toward each other in a converging manner whereby tobacco may be congestively fed to said throat, throat pieces having parts adapted to be inserted into corresponding recesses in the upper and lower sides of said throat and apertured for the mounting therein of brass plates retained in said throat pieces by rivets, gear mechanism for moving said endless chains and reciprocating knives adapted to cut the tobacco as it passes through said throat.

2. In a tobacco cutting machine of the character described, the combination of a frame having a throat, two endless chains supported by said frame, throat pieces adapted to be inserted and retained into the upper and lower surfaces of said throat, brass plates adapted to be inserted in said throat pieces and retained therein by dovetail joints, and said brass plates beveled to an edge whereby said endless chains may feed the tobacco upon said throat pieces without said tobacco getting between said chains and said throat pieces, reciprocating knives adapted to cut the tobacco as it emerges from said throat, mechanism to operate said knives and gear mechanism to operate said endless chains.

3. In a tobacco cutting machine of the character described, the combination of a frame supporting two endless chains mounted to converge toward a throat in said frame, said throat having its upper and lower surfaces provided with throat pieces recessed for the retention in a dovetailed manner of brass plates, said throat pieces and said brass plates being beveled whereby said endless chains may feed the tobacco upon said throat surfaces in an efficient manner, reciprocating knives adapted to cut the tobacco as it emerges from said throat, mechanism to operate said knives and gear mechanism to operate said endless chains, substantially as described.

In testimony whereof I have hereunto affixed my signature in the presence of two witnesses.

ARTHUR H. ANSTEY.

Witnesses:
ELEANOR T. DE GIORGI,
HENRY M. LOVE.