Oct. 22, 1963 W. A. MISH, JR 3,107,792

LOADING AND STRIPPER TABLE

Filed Nov. 8, 1961 2 Sheets-Sheet 1

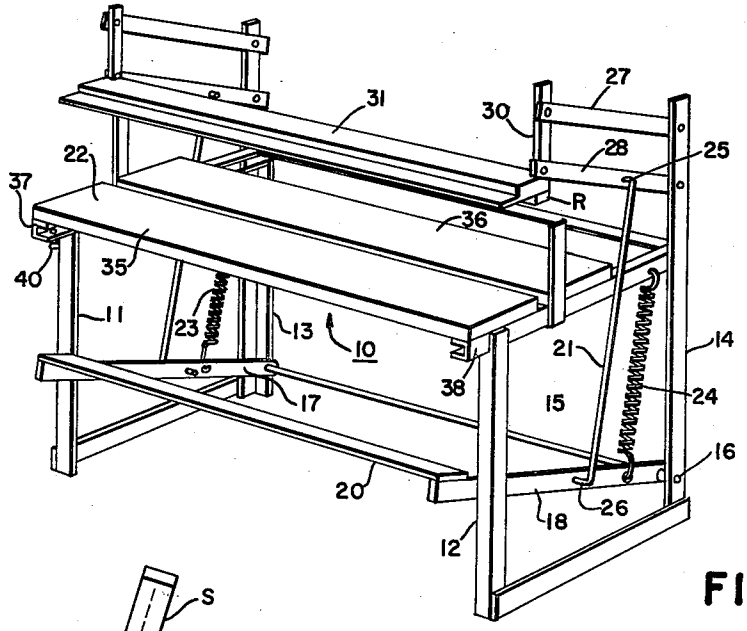


FIG. 1.

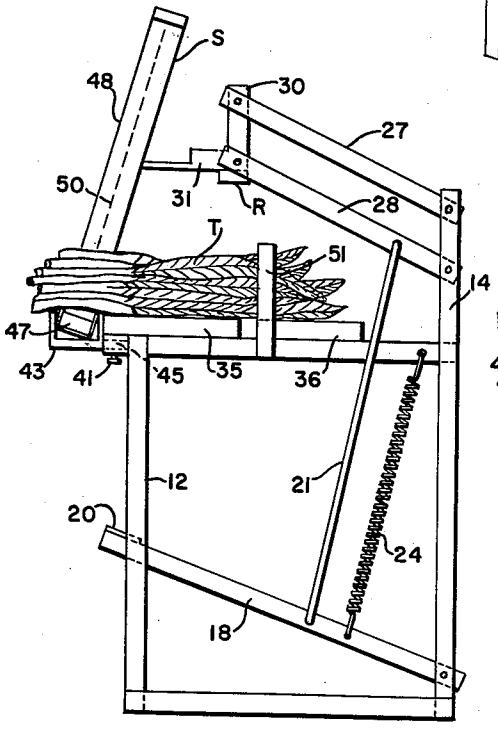


FIG. 2.

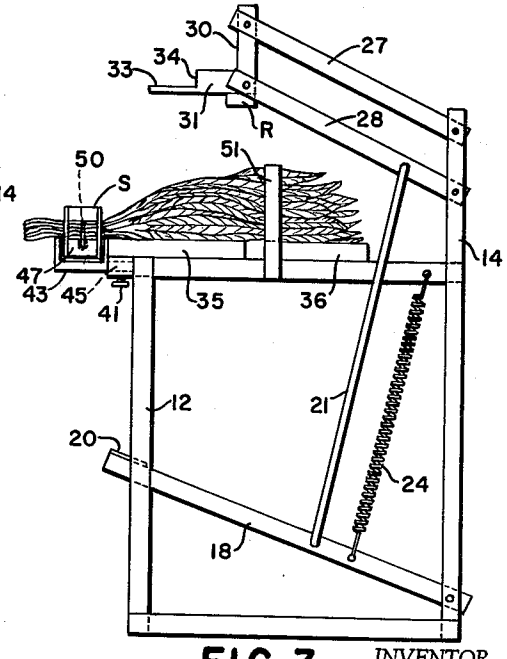


FIG. 3.

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LOADING AND STRIPPER TABLE

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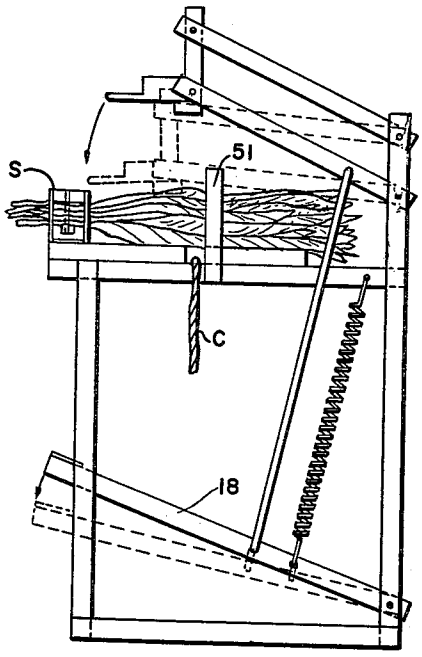


FIG. 4.

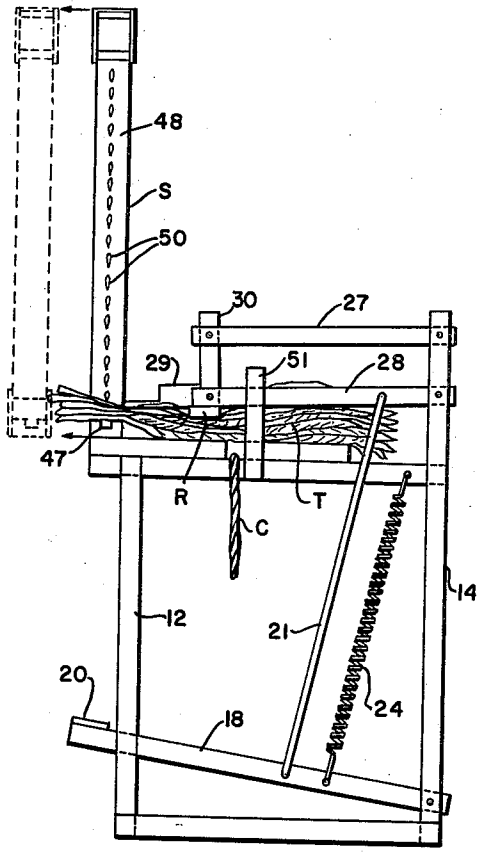


FIG. 5.

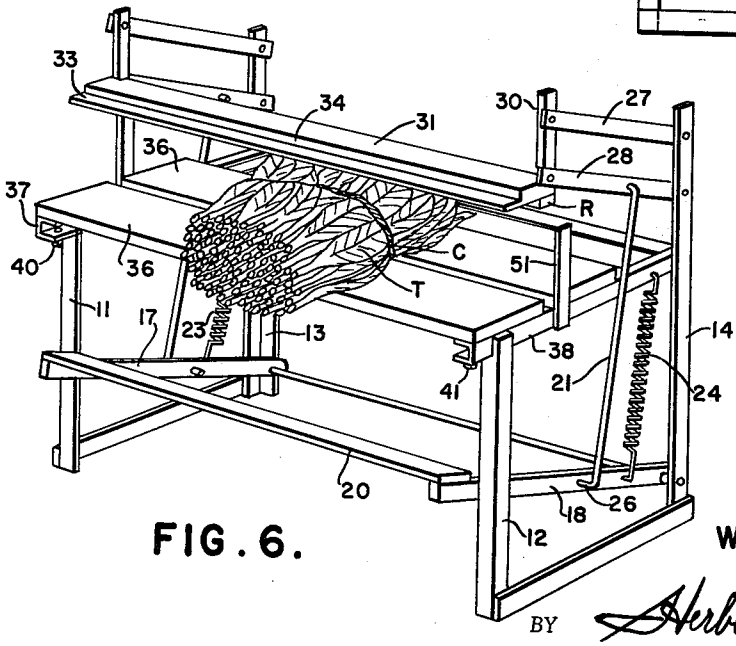


FIG. 6.

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LOADING AND STRIPPER TABLE

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5 Claims. (Cl. 214—5.5)

The present invention relates to tobacco curing and particularly to a method and means for simplifying loading of green tobacco on tobacco curing sticks and for subsequent unloading and tying of the cured tobacco.

A primary object of the invention is to provide a novel method of loading green tobacco leaves onto clamp-type tobacco drying sticks and in the subsequent unloading of the cured tobacco leaves from the tobacco drying sticks for tying the leaves in bundles or bunches for final aging.

More specifically it is an object of the invention to provide a novel table for handling and arranging tobacco leaves on the table for loading the leaves rapidly and effectively for maximum drying and curing efficiency on tobacco sticks and unloading the cured leaves from the sticks for bundling and tying with a minimum of labor effort.

Still another object is to provide a novel tobacco table with a treadle actuated tobacco leaf stick unloader means.

Yet another object is to provide a novel tobacco table comprising in one unitary combination novel loading, unloading and tobacco leaf sorting and tying equipment, thereby requiring minimum labor effort and time.

The above and further objects and advantages of the present novel method and novel means for practicing the method will more fully appear from the following detailed description when read in conjunction with the accompanying drawings.

In the drawings wherein like numerals refer to like parts throughout the several views,

FIGURE 1 is a perspective view of one form of novel means for practicing the present invention;

FIGURE 2 is an end elevation view of FIGURE 1 illustrating a clamp-type tobacco stick in the table supported auxiliary stick supports with the clamp open for loading green tobacco therein;

FIGURE 3 is an end elevation view of FIGURE 1 illustrating the clamp-type tobacco stick closed in loaded position in the table supported auxiliary stick supports;

FIGURE 4 is an end elevation view illustrating the table when it is used for unloading the tobacco sticks;

FIGURE 5 is a similar view to FIGURE 4 illustrating the tobacco stick clamp with one bar element thereof raised to permit the leaves on the drying stick to be stripped from the spikes of the stick; and

FIGURE 6 is a perspective view showing the unloading parallelogram assembly raised with a bundle of dried or cured tobacco leaves resting on the table.

Referring to the drawings in detail and first with particular reference to FIGURE 1, there is illustrated one form of table means 10 for loading, unloading and tying tobacco leaves. The table comprises front legs 11 and 12 and rear legs 13 and 14, which extend upwardly above the rear edge of the top of the table. Pivoted by suitable means, such as transverse rod 15 to each rear leg are side bars 17 and 18. These bars 17 and 18 extend from the transverse rod 15, which pivots at 16 near each lower end of the rear legs to a predetermined position beyond the front legs and below the front edge of the top surface 22 of the table 10 adjacent the ground, floor or some suitable supporting surface for the table and are connected together by a treadle bar 20 within convenient reach of an operator's foot.

The treadle bar 20 spans the open front space between the front legs of the table and is normally biased upward by side springs 23 and 24, respectively, each spring being

connected at one end to an intermediate portion of one of the side bars 17 and 18 and at the opposite end to a side of the table top frame.

The treadle bar 20 is connected from the side bars 17 and 18 by suitable linkage means such as rod 21. The rod 21 is formed with inturned ends 25 and 26, to thereby be pivotally connected between the side bars 17 or 18 and to an intermediate portion of the lower leveling bar 28 of a parallelogram linkage asesmbly pivoted to the upstanding extensions of rear legs 13 and 14. Each parallelogram linkage assembly comprises vertically spaced upper and lower leveling bars 27 and 28, the front ends of each bar being pivoted at their respective front free or floating ends to a toggle link 30, and the rear ends of the bars 27 and 28 as above stated being pivoted in vertical spaced relation to the extension above the table top of each respective rear leg 13 and 14.

Extending between each toggle link 30 between the levelling bars 27 and 28 and suitably secured to the lower end of each link 30 is an elongated bar 31, hereinafter called the stick unloading and cured tobacco holding bar. This stick unloading and cured tobacco holding bar is formed along the front longitudinal edge with a flange 33 and vertical shoulder 34 for engagement under the top bar for a clamp-type tobacco stick to facilitate unloading the same, see FIGURES 4 and 5. Also, the bar 31 when serving as a cured tobacco holding implement is provided with an elongated soft cushion strip R formed of a material such as sponge rubber, see FIGURE 5.

The table top 10 is formed with sectional longitudinally spaced members, such as planks or boards 35 and 36. The space between the boards serves as a well for the cord C to tie cured tobacco T into bundles after removal from the sticks. These table boards are supported on transverse U-shaped metal side beams 37 and 38, which form the table top frame structure to each respective end of which the table legs 11, 12, 13 and 14 are suitably secured as by welding or riveting or the like. The open portions of each U-shaped beam are faced inwardly of the table top 10 toward each other and each bottom leg adjacent the front end of the U-shaped beams is formed with a threaded opening to receive the complementary threads of set screws 40 and 41, see FIGURES 2 and 3. These set screws are used to detachably secure identical auxiliary tobacco stick retainer means, such as cradles or cups 43, see FIGURES 2 and 3. The retainer brackets cradles or cups 43 each comprise bottom and side walls and at each end are formed with a lateral lug or extension 45 adapted to slidably engage in the open spaced ends of their associated respective oppositely facing side beams at the front of the table. These lugs 45 of the respective retainer means 43 when thus inserted in the end of one of the side beams may then be readily secured in place by the set screws 40 and 41, and as illustrated a tobacco clamp-type stick may then be positioned in the cradle 43 for loading.

When loading green tobacco the foot treadle 20 and the tobacco unloading and holding bar 31 is not used, since the green tobacco is not compressed on the stick. The function of the table and the tobacco stick auxiliary retainer brackets or cradles 43 is to hold the stick at a comfortable working position and to do this the auxiliary retainer brackets or cradles are attached in advance of the front edge of the table. As shown in FIGURES 2 and 3, to load the stick S with green tobacco, the leaves are placed on the non-spiked clamp member 47 of the stick until filled and then the spiked clamp member 48 is lowered and fastened to complete the stick loading operation. Heretofore, the tobacco sticks used have been of a type requiring the tobacco to be selectively tied on the stick in bunches by hand, which is slow and requires much more time and labor than with the snap-on or clamp on stick.

The present clamp-on tobacco stick S is similar to the type shown in my co-pending patent application Serial Number 129,706, filed August 7, 1961.

The present novel method of handling harvested green tobacco from the harvester comprises the steps of utilizing the present novel loading and unloading or stripping table shown in the drawings. For example, harvested green tobacco is taken from the harvester machine and the leaf portions placed upon the table with the stem portions extending over the front of the table with the leaf section of the tobacco below the stem over the lower spike free clamp bar **47**, see FIGURE 2. The lower clamp bar **47** as shown is supported by the retainer brackets **43**, while the upper spike clamp bar **48** is raised above the lower bar in a position to be lowered into closed clamping position so that the spikes **50** of the bar **48** pierce the tobacco at the leafy portions just adjacent the stems thereof.

During the stick loading and arrangement of the green tobacco on the table for clamping in the tobacco sticks, it has been found that end uprights **51** at each end of the table top **22** are very useful to keep the leaves from falling off the table at the ends.

After the sticks are loaded with green tobacco they are removed from the stick loader retainer brackets **43** and transported to the curing barn.

The next step in the present tobacco handling method is to remove the cured tobacco from the curing house or barn and again place the same on the table **10**. However, when placing the tobacco sticks on the table for unloading or stripping the cured tobacco from the sticks, the stick retainer brackets or cups **43** used for loading are removed, the table operator steps on treadle bar **20** and lowers the parallelogram assembly, and the sticks are placed transversely along the front edge of the table with the flange **33** carried by the levelling bars **27** and **28** inserted between the clamp bars, see FIGURE 4. The operator holds the treadle bar **20** down to slightly compress the cured tobacco, see FIGURE 5, and while holding the lower spikeless clamp bar **47** on the table the spike clamp bar **48** is elevated, to thereby remove the spikes **50** from the cured tobacco.

After the cured tobacco is stripped from the stick spikes the leafy portion of the tobacco is resting transverse the cord well in the table top and the cord C therein may now be tied around the cured tobacco to form a bundle, see FIGURE 6.

This stripping process is repeated and the cured tobacco bundles as they are tied are removed for storing in proper aging containers.

Without further description it is believed that the advantages of the present invention over the prior art is apparent and while only one embodiment and method of practicing the same is illustrated, it is to be expressly understood that the same is not limited thereto as various changes may be made in the combination and arrangement of the parts illustrated and in the method steps used, as will now likely appear to others and those skilled in the art. For a definition of the scope or limits of the invention, reference should be had to the appended claims.

What is claimed is:

1. A table for stick loading green tobacco and for stick unloading cured tobacco comprising a top with supporting front and rear legs, said rear legs having upward extensions at the rear edge of the table top, each rear leg extension having a parallelogram linkage assembly pivoted thereto, each of said linkage assemblies including vertically spaced levelling bars pivotally connected to said rear leg extensions, said vertically spaced levelling bars having a link means pivotally connected to their opposite free ends, said link means having a transverse tobacco holding bar connected between the lower ends thereof, and a foot operated treadle operatively connected to said respective parallelogram linkage assemblies to raise and lower said tobacco holding bar.

2. A table for stick loading green tobacco and for stick unloading cured tobacco, as described in claim 1, wherein the bottom of said holding bar is covered with a cushion strip.

3. A table for loading green tobacco on clamp-type sticks and for stripping cured tobacco therefrom, said table comprising a top formed of longitudinally spaced planks in the provision of a cord well extending longitudinally along the center of the top from side-to-side thereof, tobacco stick retainer brackets mounted at the front edge of the table top for use when loading green tobacco, and a cured tobacco holding bar having a holding face movable from a raised to a lowered holding position for facilitating the stripping of the cured tobacco from clamp-type tobacco sticks while said leafy portions of the tobacco extend across said cord well, said bar being pivotally mounted above the table top for movement in a substantially level position of its holding face with respect to the table top, whereby the said cured tobacco is in position to be tied in a bunch.

4. A tobacco handling table comprising a table top formed of spaced planks in the provision of a well between the faced inner longitudinal edges of the planks, a tie cord in said well between said planks, manually actuated tobacco leaf holding means pivotable up and down with respect to said table top, and upright stop means at each end of said table top.

5. A tobacco handling table comprising a table top formed of spaced planks in the provision of a well between the faced inner longitudinal edges of the planks, a tie cord in said well between said planks, manually actuated tobacco leaf holding means pivotable up and down with respect to said table top, upright stop means at each end of said table top, and spring means normally biasing said leaf holding means upward.

References Cited in the file of this patent

UNITED STATES PATENTS

564,910	Ashbaugh	July 28, 1896
635,884	Waltz	Oct. 31, 1899
817,011	Smith	Apr. 3, 1906
1,743,832	Seligman	Jan. 14, 1930
2,378,953	Rundell	June 26, 1945
2,418,550	Edwards	Apr. 8, 1947
2,484,088	Hayes	Oct. 11, 1949
2,708,441	Viglione	May 17, 1955
2,709,103	Tillman	May 24, 1955
2,714,385	Jackson	Aug. 2, 1955
2,780,227	Benning et al.	Feb. 5, 1957
2,964,043	Benning et al.	Dec. 13, 1960
3,014,487	Billings	Dec. 26, 1961
3,025,050	George et al.	Mar. 13, 1962