Oct. 7, 1969 E. T. CLARK 3,470,882

PACKAGE OF TOBACCO LEAVES

Filed Aug. 18, 1967 4 Sheets-Sheet 1

FIG. 1

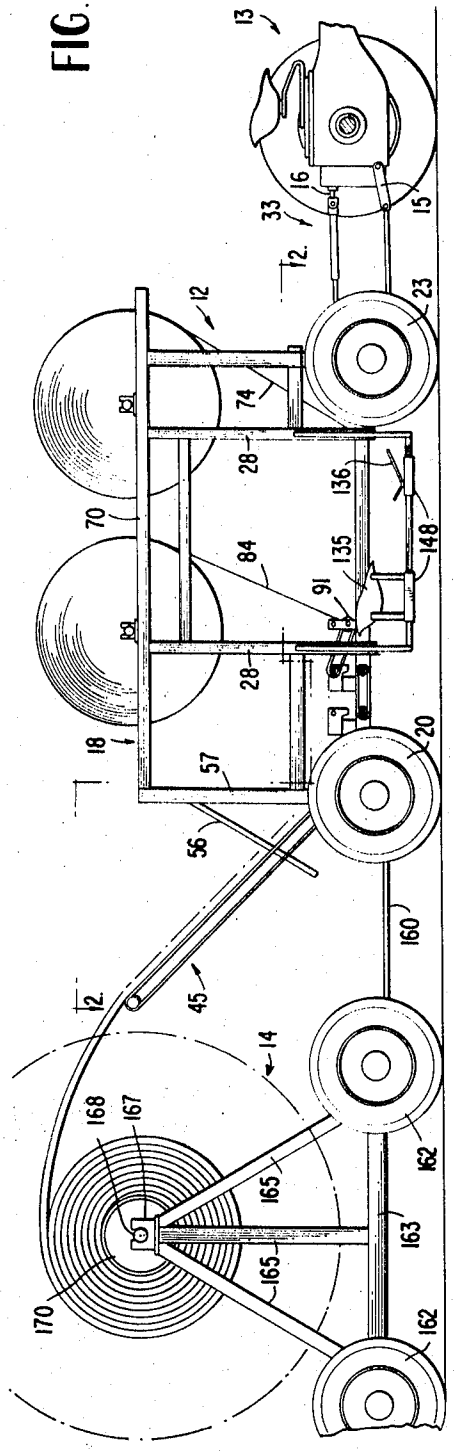


FIG. 7

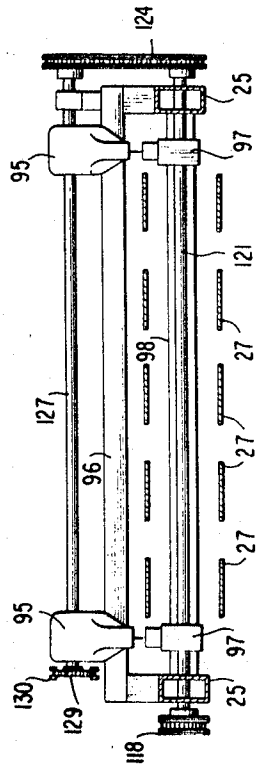
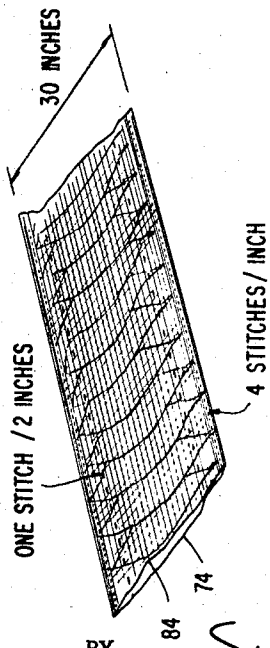


FIG. 9



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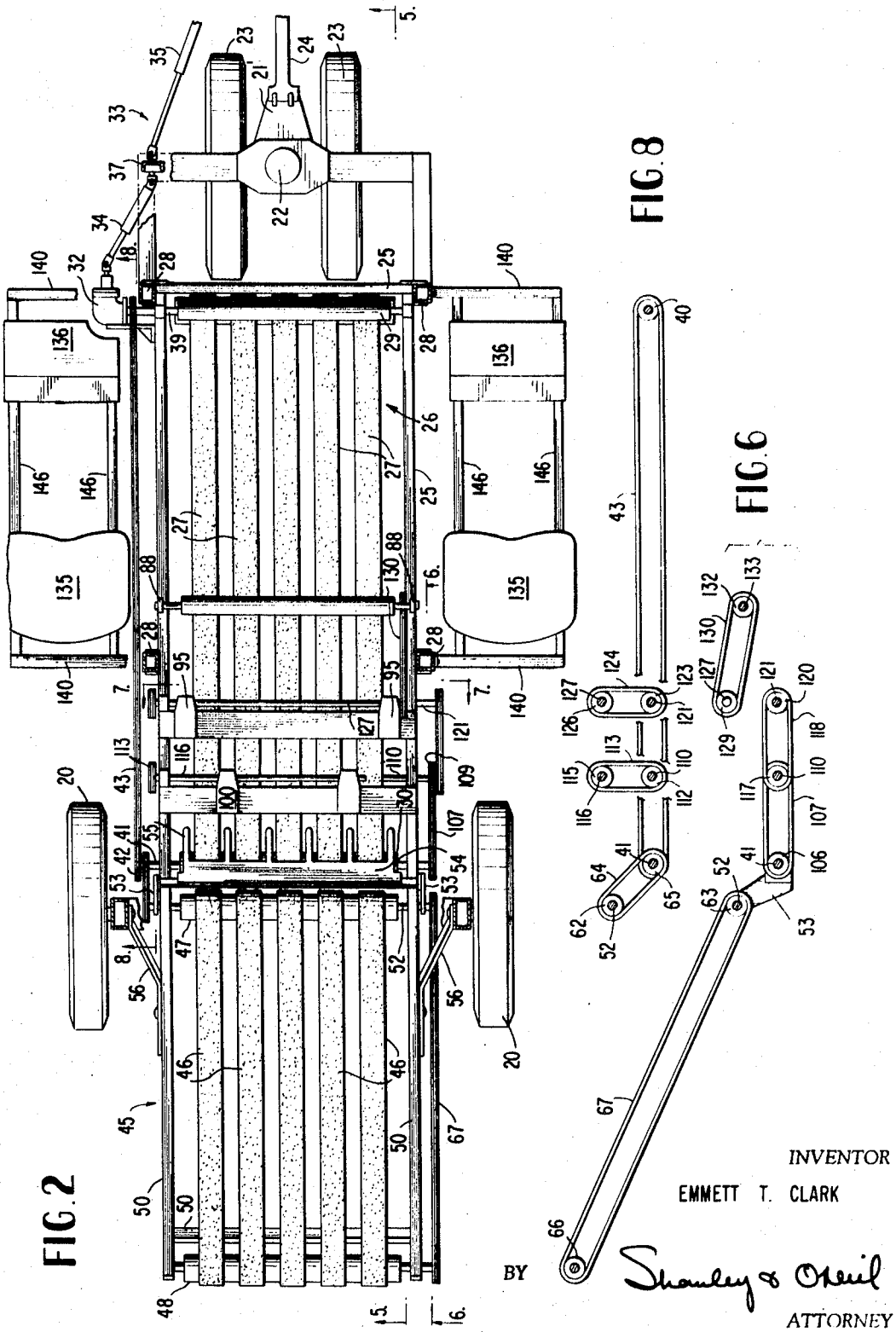


FIG. 2

FIG. 6

FIG. 8

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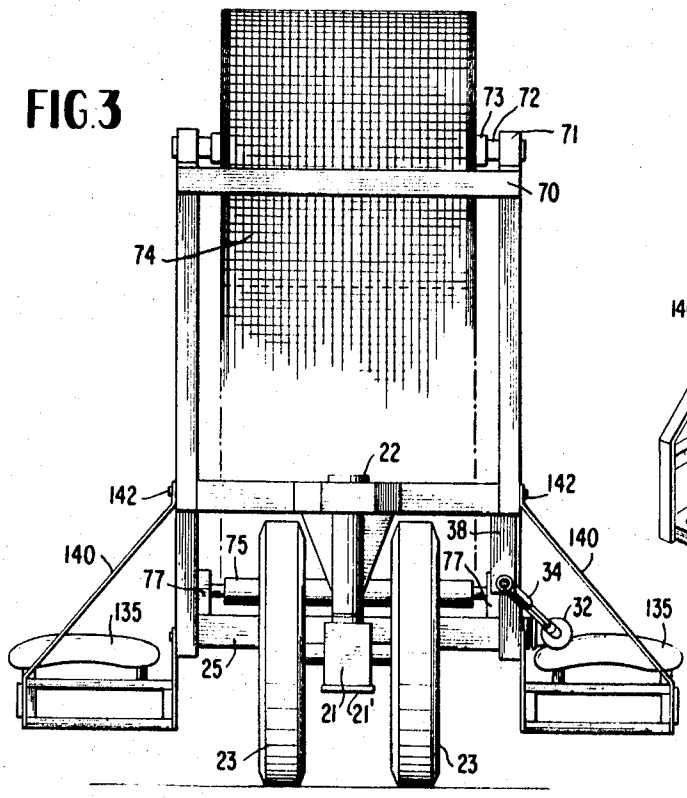
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Oct. 7, 1969 E. T. CLARK 3,470,882

PACKAGE OF TOBACCO LEAVES

Filed Aug. 18, 1967 4 Sheets-Sheet 3

FIG.3



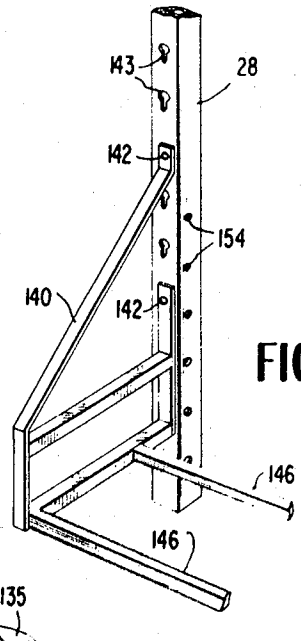


FIG.10

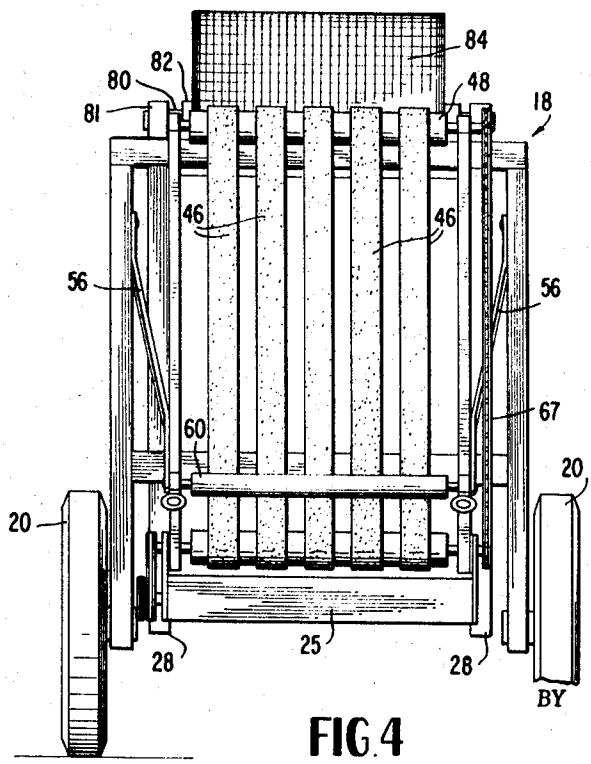


FIG.4

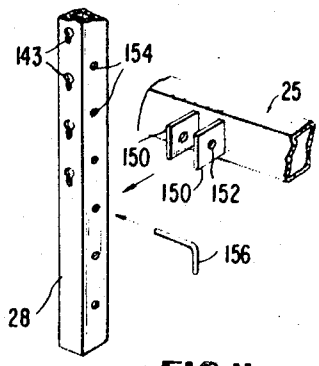


FIG.11

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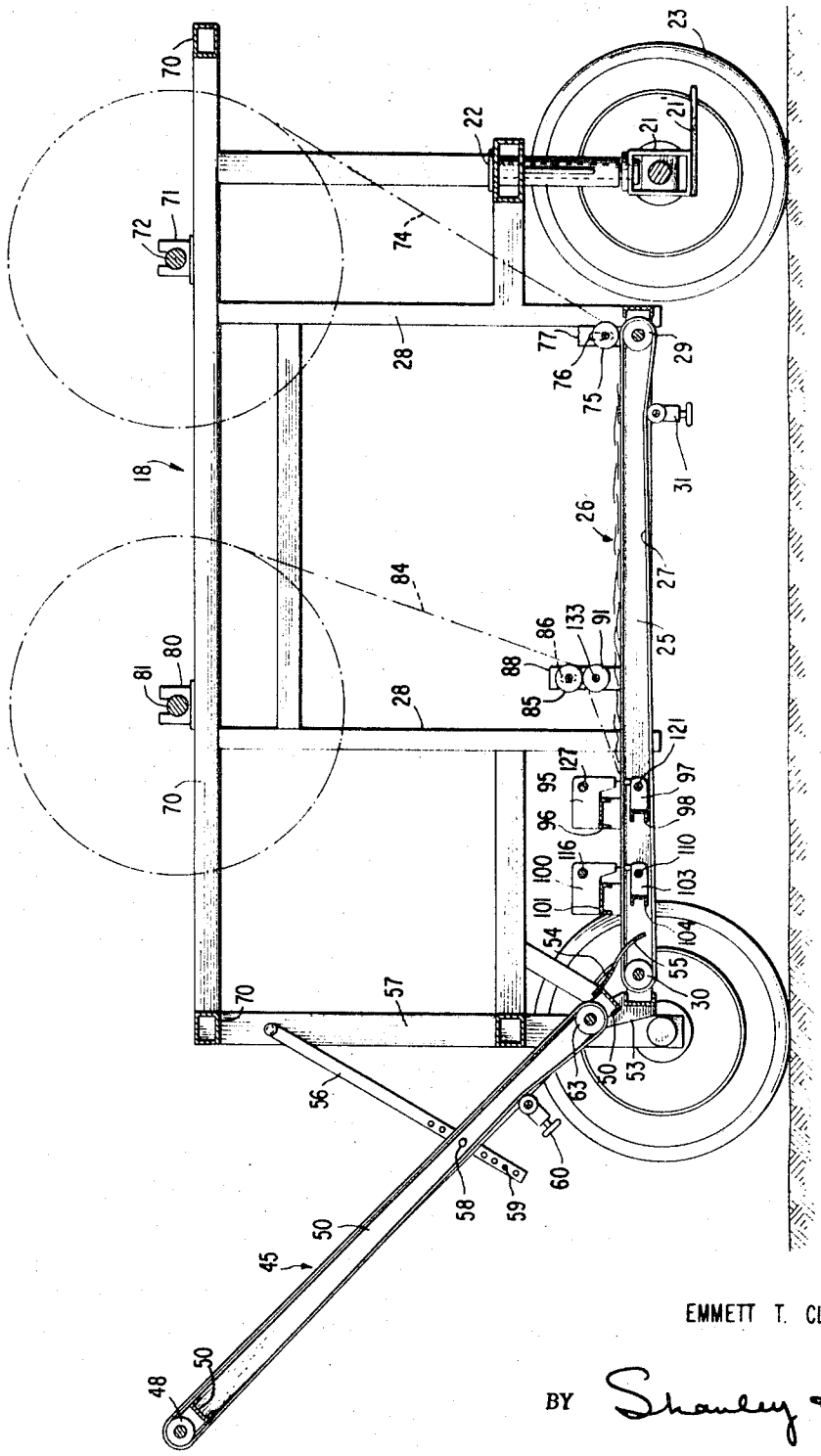


FIG 5

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United States Patent Office

3,470,882
Patented Oct. 7, 1969

3,470,882

PACKAGE OF TOBACCO LEAVES

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Filed Aug. 18, 1967, Ser. No. 661,641
Int. Cl. A24b 1/10, 1/00; A24c 1/08
U.S. Cl. 131—4 6 Claims

ABSTRACT OF THE DISCLOSURE

A shipping package comprising a substantially flat envelope having sides of flexible web material which are connected along at least two opposite side edges. A plurality of cured whole tobacco leaves are positioned within the envelope, with their stems directed towards one of the side edges. Connecting means, coextensive with the edges, pass through the leaves and the web material to hold the leaves and the sides of the envelope from substantial relative movement.

Background of the invention

A preferred variant of the method and a preferred embodiment of the apparatus of the present invention are described in the environment of tobacco harvesting, handling, curing and shipping although it is applicable to other crop materials.

Prior to the present invention it has been the practice for harvesters of tobacco to move along the rows of tobacco plants removing ripe leaves and handing them up to other workers who are riding along on the platform of a vehicle moving abreast of the pickers. The workers on the platform tie the stems of a bunch or "hand" of tobacco leaves together and then tie this clump of tobacco leaves to a "stick." A plurality of bunches of tobacco leaves are tied along the length of each stick at points spaced from the ends. These sticks are carried by other workers to a tobacco barn where the ends of the sticks are laid on parallel supports in closely spaced relation along the length of the barn. When the barn is full, sources of heat are introduced and the tobacco is cured. When the tobacco is "cured out" the barn is opened up to permit the tobacco to "come back," i.e., absorb atmospheric moisture. The cured tobacco can then be handled and transported to aging facilities and eventually to tobacco product manufacturing plants.

It will be obvious that this prior art process of harvesting and handling tobacco requires a great deal of manual labor.

It has already been proposed to reduce the amount of labor involved in tying tobacco to sticks by means of machinery for stringing or stitching the stems of tobacco leaves together with string or forming a string by sewing the stem ends of the leaves to a cloth band or tape so that the tobacco leaves can be hung in the barns on sticks or otherwise with less manual labor. Representative patents disclosing these ideas are Bass Patent 1,987,844, Dickerson Patent 2,327,252, Coley et al. Patent 2,825,474 and Robinson et al. Patent 3,130,844. None of these proposals had been accepted in the field.

The present invention would utilize only one or two pickers, a tractor driver for towing the machine and a second tractor driver for replacing loaded trailers of collected web means and tobacco leaves produced by the harvesting machine and towing them to the tobacco barns or in some cases two truck drivers, the last for driving trucks, one at a time along with the harvesting machine to collect web means integrated with the tobacco leaves which is produced in the harvesting machine and transporting full truck loads to the barns. The reduction in labor costs is obvious.

As pointed out in the following description of the preferred embodiment of the invention, additional advantages accrue in both the curing and later handling of the tobacco.

Brief description of the drawing

FIGURE 1 is a view in side elevation, with parts omitted for convenience, of a preferred embodiment of the apparatus of the present invention which is also suitable for carrying out certain steps of the method of the present invention;

FIGURE 2 is a plan view in horizontal section on line 2—2 of FIGURE 1 with parts omitted for convenience, of the apparatus of FIGURE 1;

FIGURE 3 is a front view in elevation of the apparatus of FIGURE 1 with parts omitted for convenience;

FIGURE 4 is a rear view in side elevation of the apparatus of FIGURE 1 with parts omitted for convenience;

FIGURE 5 is an enlarged view in section taken on the line 5—5 of FIGURE 2;

FIGURE 6 is an enlarged fragmentary view in vertical section taken on the line 6—6 of FIGURE 2;

FIGURE 7 is an enlarged fragmentary view in vertical section taken on the line 7—7 of FIGURE 2;

FIGURE 8 is a fragmentary view in vertical section taken on the line 8—8 of FIGURE 2;

FIGURE 9 is a fragmentary view of a portion of an example of product of the apparatus and method showing in phantom the relationship of the parts;

FIGURE 10 is an enlarged fragmentary detailed view of a part of the apparatus and

FIGURE 11 is another enlarged fragmentary detailed view of a portion of the apparatus.

Description of preferred embodiments of the present apparatus invention and preferred variants of the present method invention.

Referring to the drawings, a harvesting machine is indicated generally by reference numeral **12** which can be drawn and powered by a tractor indicated generally by reference numeral **13** and which can have connected behind it a harvested tobacco accumulating trailer indicated generally by the reference numeral **14**. Tractor **13** can be a conventional machine with a conventional tow bar connection **15** and auxiliary power take-off **16**.

The harvesting machine **12** comprises a suitable structural framework indicated generally at **18** which is supported at the rear on wheels **20** and at the front on a truck **21** pivoted in the frame at **22** and including a pair of coaxially mounted wheels **23**. The vehicle thus formed is drawn and steered by a conventional tongue **24** connected to a projecting portion **21'** of truck **21**. A rectangular structural frame **25** is supported at the lower end of four vertical structural members of the vehicle framework **18** and carries a belt conveyor indicated generally at **26** made up of a plurality of spaced belts **27** in conjunction with rollers **29** and **30** journaled in frame **25**. Belts **27** are maintained in tight frictional engagement with rollers **29** and **30** by a belt tightener shown schematically at **31**. Belt conveyor **26** is driven through roller **29** by means of a 90° drive gear box **32** connected by a universal joint drive shaft system indicated generally at **33** from power take-off **16** of the tractor. In order to accommodate pivotal movement of the truck **21**, drive shaft system **33** includes telescoping portions **34** and **35** with conventional universal joint connection at their ends. An intermediate bearing **37** for the transmission shaft is supported by a depending post **38** carried by the vehicle structural framework. The drive and bearing shaft **39** of conveyor roller **29** which is driven by 90° gear box **31** has keyed to it a sprocket **40** and the bearing and drive shaft **41** of conveyor roller **30** has keyed to it an identically sized sprocket **42**. A drive

chain 43 interconnects the two sprockets to drive roller 30 at the same speed as roller 29. Vehicle framework 18 also carries a second belt conveyor indicated generally by the reference numeral 45 which incolves a plurality of belts 46 carried by conveyor rollers 47 and 48 which in turn are journaled in a vertically swingable rectangular frame 50. The lower end of frame 50 is pivoted on the bearing and drive shaft 52 of roller 47 by means of a pair of structural members 53 carried by frame 25. A deflector guide 54 with fingers 55 extending downwardly between belts 27 is carried by and between structural members 53 to bridge the space between conveyor 26 and conveyor 45. Frame 50 and therefore conveyor 45 can be pivotally adjusted on shaft 52 as to the angle it makes with conveyor 26 and held by means of a pair of arms 56 which are pivotally connected to the rear vertical members 57 of vehicle framework 18 and have their free ends connectable to framework 45 by bolts 58 passing through selected holes of a plurality of bolt holes 59. A belt tensioning device 60 is diagrammatically shown for conveyor 45. The opposite ends of the bearing shaft 52 of roller 47 each carry a sprocket 62 and 63, respectively, identical to sprocket 42 (see FIGURES 6 and 8). Sprocket 62 is connected by a drive chain 64 with another identical sprocket 65 carried by shaft 41 of conveyor 26 so that roller 47 of conveyor 45 is driven at the same speed as roller 30 of conveyor 26. Roller 48 of conveyor 45 has on one end of its bearing shaft a sprocket 66 identical in size with sprocket 63 and a drive chain 67 connects the two sprockets so that roller 48 is driven at the same speed a roller 47. Since conveyor 45 pivots on the axis of bearing and drive shaft 52 vertical swinging movement of conveyor 45 will not result in a difference in distance between the centers of sprockets 52 and 65.

The upper portion of vehicle framework 18 carries a rectangular structural frame 70 which in the forward portion of the machine carries a pair of coaxially disposed bearing chocks 71 which removably support a shaft 72 on which is rotatably mounted a cylindrical core 73 carrying a roll of foraminous or porous, flexible sheet material 74, such as open weave webbing, cheesecloth, netting or the like. Carried at the lower forward portion of the vehicle framework 18 is a vertically movable, freely turning roll 75 of appreicable weight, the bearing shafts of which ride in a vertically elongated slot 76 in stub column 77 rigidly attached to the framework. Roller 75 may be manually or otherwise lifted vertically to the position shown in FIGURE 5 to permit web 74 to be passed under it. When released the weight of roll 75 presses web 74 against the conveyor belts 27 with sufficient force to draw web 74 off the roll. Conveyor 26 will carry web 74 along and fingers 55 on guide 54 which project down between belts 27 will divert and guide web 74 onto conveyor 45.

In the preferred embodiment of the present invention frame 70 also carries a second pair of coaxially aligned bearing chocks 80 which removably support a shaft 81 on which is rotatably supported the cylindrical core 82 of a second roll of foraminous or porous, flexible sheet material 84 which can be identical in construction with web 74. Web 84 passes under a freely turning roll 85 which is rotatably mounted in vertical slots 86 of brackets 88 carried by frame 25. Mounted below roll 85 is a roll 91 having fixed bearings at each end in brackets 88, roll 91 being driven at a peripheral speed equal to (or very slightly greater than) that of the driving rollers 29 and 30 of conveyor 26 and conveyor belts 27. This may be accomplished by means of sprockets and chain drive synchronized with the drive of conveyor 26, as wil be described below. The diameter of roll 91 will be dimensioned to give the desired peripheral speed. As in the case of web 74, roll 85 can be manually or otherwise moved upwardly to thread web 84 between rolls 85 and 91. The weight of roll 85 when lowered will then cause roll 91 to take web 84 off its roll and feed it into an overlying position in respect to web 74. Since crop material will have been deposited on web 74 before web 74 reaches conjunction with web 84, web 84 will overlie the harvested crop material. It is desirable to have the marginal portions of both webs coincide for connection together and therefore web 84 may be slightly greater in width to accommodate the thickness of a layer of crop material riding on web 74. Since, as will be explained below, the webs are joined together in the machine, their respective linear movements should be synchronous but if this is not always practicable, web 84 can be moved at a very slightly higher speed, the weight of the harvested crop material on web 74 making it undesirable to slow that web down appreciably, a slight excess of web 84 overlying web 74 causing no undesirable effect. This slightly higher speed can be considered for all practical purposes as substantially the same speed since too great a difference in the speeds of the webs would serve no useful purpose.

Where the two webs 74 and 84 are utilized, the present invention contemplates connecting both marginal portions of both webs together to form a continuous envelope enclosing the harvested crop material being carried along by conveyor 26. For this purpose a pair of sewing machine heads or equivalent devices 95 are mounted on a transverse structural member 96 carried on top of the lower rectangular frame 25 and a pair of associated looping or equivalent devices 97 are carried on a transverse structural member 98 carried between the side rails of structural frame 25. Since these sewing machines or their equivalent form no part of the present invention they will not be disclosed in detail, any suitable stitching device, preferably for double chain stitching, being satisfactory for the purpose of the present invention. The stitching devices 95, 97 are driven from the drive shaft of roll 30 by a sprocket and gear system to be described. These stitching devices preferably connect the two marginal portions of webs 74 and 84, preferably with closely spaced stitches of double chain stitching, to hold the associated marginal portions of the two webs together.

Where the two webs 74 and 84 of the present invention are utilized, it will normally be desirable to stabilize the harvested crop material which is enclosed between the two webs against unrestricted movement of the crop material relative to the two webs while leaving the surfaces of the crop material accessible to the free passage of air over them during curing. For this purpose one or more sewing machine heads or equivalent devices 100 are supported by a transverse structural member 101 which in turn is carried on structural frame 25 and associated looper or equivalent devices 103 are carried by a transverse structural member 104 supported between the side rails of structural frame 25. Again the stitching device or devices 100, 103 can be conventional.

Where only one web is used in the method of the present invention, the stitching devices 100, 103 only are used and they connect the tobacco leaves and the web 74 together with the stitches passing through the leaf material adjacent the stem ends of the leaves and through the leaves near the tips thereof. Normally it will be necessary for the stitching passing through the leaves adjacent the stem ends to be adequate as the primary means for holding the leaves firmly on the web 74 during subsequent handling. Preferably the stitching adjacent the tip ends of the leaves is considerably looser with greater spacing between stitches so as to permit the leaves by their natural resilience to be spaced apart for accessibility of air to their surfaces during curing. Of course, the surfaces of the leaves at the stem ends in this variant of the method should also be accessible to the passage of air during curing and the stitching and although closer and tighter than that adjacent the tips will be designed to achieve this end.

In the preferred embodiment of the apparatus of the present invention and the preferred variant of the method both webs 74 and 84 are used and one stitching device 100, 103 or possibly both stitching devices 100, 103 desirably

secure the two webs and the harvested crop material loosely together by stitches with considerably greater spacing than machines **95**, for example linearly, one stitch in two inches and with the stitches permitting the webs to be spaced apart as much as two or three inches at the stitches by the loosely deposited harvested crop material. In some situations, such as in tobacco harvesting, with the stems of the tobacco leaves deposited on web **27** being all pointed in the downward direction in FIGURE 2, and to the right in FIGURE 9, only the single lower stitching device **100**, **103** in FIGURE 2 need be utilized. With web **74** thirty inches in width the spacing of each stitching device **100**, **103** from the associated margin of web **74** can favorably be about six to nine inches and the proximity of the two webs to each other along the line of stitching can vary considerably but is such that the stitching firmly holds the tobacco leaves, despite their spaced surfaces, in stabilized position between the two webs, that is, against appreciable slippage along the length of the web, during further handling of the crop material.

As will be evident from FIGURES 2, 6 and 8, stitching devices **100**, **103**, stitching devices **95**, **97** and web **84** drive roll **91** are driven by sprockets and chains with the initial sprocket being sprocket **106** on drive shaft **41** of roll **30** of conveyor **26**. A driving chain **107** connects this sprocket with a sprocket **109** which drives a shaft **110** which in turn drives loopers **103**. On the other end of shaft **110** is a sprocket **112** which by means of drive chain **113** drives the sprocket **115** which in turn actuates a shaft **116** which operates stitching devices **100**. Shaft **110** carries a second sprocket **117** which through the medium of a drive chain **118** drives the sprocket **120** which in turn drives a shaft **121** for actuating loopers **97**. On its other end shaft **121** carries a sprocket **123** which through a drive chain **124** drives the sprocket **126** which in turn actuates a shaft **127** for operating stitching devices **95**. The other end of shaft **127** carries a sprocket **129** (see FIGURE 7) which by means of drive chain **130** drives the sprocket **132** which in turn drives the shaft **133** which is the drive shaft for roll **91**, the driving roll for web **84**. Where synchronous speeds are desired the sprockets are the same sizes. Where higher or lower speeds are desirable, as in the case of the stitching devices and their associated loopers, the sizes of the driving and driven sprockets can be different.

The conveyor **26** will move relatively slowly and the needles of the stitching devices will move relatively rapidly so that the web stopping action of the needles can be accommodated by a slight "give" of the web on the conveyor belts.

In operation of the harvesting machine in the field the tractor **13** tows the harvesting machine **12** along rows of tobacco plants and pickers can walk along beside the machine picking ripe tobacco leaves and depositing them on web **74**. Where desirable these pickers can be carried along by the machine instead of walking and for this purpose seats **135** and foot rests **136** are shown on each side of the harvesting machine. As illustrated in FIGURE 10, these seats and foot rests are vertically adjustable on upright support members **28** of vehicle framework **18** by virtue of the seat and foot rest supporting framework **140** incorporating headed bolts **142** receivable in selected slots **143**. Seats **135** and foot rests **136** are selectively, longitudinally adjustable on rails **146** of framework **140** by means of telescoping tubular members **148** which can hold each seat or foot rest in a desirable position by any suitable clamping means.

Structural frame **25**, conveyor **26** and associated structure, including supporting member **53** and conveyor **45**, constitute a unitary structure supported by vehicle framework **18** for vertical adjustment so that conveyor **25** can be set at the optimum height above the ground under conditions in the field. This is made possible by the adjustable means illustrated in FIGURE 11 which illustrates an adjustable connection between structural frame **25** and vertical frame members **28** of vehicle framework **18**. Each side rail of frame **25** carries two pairs of ears **150** for cooperation with each of the four vertical structural members **28**. For adjustably connecting the structural frame **25** to the vertical structural member **28**, each pair of ears has aligned holes and each vertical structural member **28** has a plurality of vertically spaced aligned holes **154**. With ears **150** being spaced so as to embrace vertical structural member **28** and with the holes **152** in the ears **50** aligned with a pair of holes **154** in the vertical structural member **28**, pin **156** is passed through all four holes. With this done in respect to each of the set of ears **150** and vertical structural members **28** at the same level the table will be locked at that elevation. Of course to change the elevation the four pins are removed and the four sets of ears are aligned with higher or lower pairs of holes on the four vertical posts.

The harvesting machine of the present invention can be followed in the field by any means for accumulating netted crop material, a vehicle being preferable so when loaded the connection with the machine **12** can be severed and the accumulated crop material transported to a tobacco barn. One form of preferred vehicle indicated generally by reference numeral **14** is a trailer which can be connected to the harvesting machine **12** by means of a detachable towbar **160**. The illustrated form of tractor rides on four wheels **162**, the leading two wheels being in pivoted truck form similar to those of the harvesting machine for steering purposes. A chassis **163** carries a structural framework **165** which supports a pair of aligned shaft bearing chocks **167**. Shaft **168** is removably supported in chocks **167** and a rotatable mandrel or core **170** is carried by shaft **168**. The netted tobacco leaves held between the two webs **74** and **84** or integrated with a single web **74** are reeled onto mandrel **170** in any desired manner, i.e., by power or by hand.

It is believed that the operation of the harvesting machine of the present invention will be obvious from the foregoing description. The method of the present invention in conjunction with which the harvesting machine may be used will now be described. As will be evident from the foregoing description, applicant's invention, in the specific variant involving the harvesting of tobacco, involves laying the ripe leaves on a moving web of material which is strong enough to hold the tobacco during handling, hanging in the tobacco barn and in some cases shipment while at the same time being extremely porous, foraminous or reticulated so as to allow air to get at the tobacco integrated with or enclosed within this material and at the same time to cut down the amount of textile material involved and therefore reduce the cost. A representative strip of this material could be thirty inches wide with marginal portions which are closely woven to receive the stitching from machines **95**, **97** and with the material between the marginal portions being of extremely open mesh with as great as one inch square or two inch square openings. Since the cost of this material will be an appreciable item, it is contemplated that, where it is not used in shipment, it can be salvaged after the tobacco is cured and the salvaged web reused in the process. This could be facilitated by the use of chain stitching along the margins and intermediate the margins where practicable so that by pulling one string or thread the entire line of stitching will unravel.

When the tobacco leaves have been deposited on the moving web by the picker, with two pickers and the harvesting machine moving slowly down between two rows of tobacco, with the tobacco leaves arranged transversely of the longitudinal dimension of the webbing and the stems pointing in the same direction, the tobacco leaves can be integrated with the single webbing by a row of stitches passing through the tobacco leaves at the stem ends, i.e., through some of the leaf adjacent the stem while at the same time a looser stitching operation takes place along the other side of the webbing near the tips of the leaves. Especially in respect to the latter row of stitching, the

stitches are made as loose and as far apart as practicable so that when the tobacco is being cured air can get in between the leaves. In the curing operation the leaves will shrink but this will merely cause puckering of the webbing material without affecting the efficacy of the method. It is also conceivable that intermediate lines of extremely loose stitching can be used to integrate the leaves and the webbing and this may be desirable to assure that the tobacco leaves will not become disengaged from the webbing during curing and start a fire in a tobacco barn.

Due to the many advantages inherent in the web enclosing method of the present invention, it is preferred. As will be evident from the foregoing, in this variant of the method the marginal portions of the webbing are connected tightly together by close stitching machines **95, 97** after the second web **84** has been laid over the tobacco leaves which are being carried along on web **74**. With both ends of the resulting envelope securely connected, only one line of stitching appears to be necessary to stabilize the tobacco leaves in the envelope, the enclosing action of the webs or netting assuring that no tobacco leaves can drop during the curing process and start a tobacco barn fire. Even though the single line of stitching intermediate the marginal portions of the webs is of a loose nature and passes through an appreciable thickness of tobacco leaves, perhaps two inches thick, this single line of attachment in conjunction with the enclosing and supporting action of the envelope of web material is sufficient to maintain the tobacco leaves against unrestricted movement relative to the webbing. Leaving the remainder of the tobacco leaves unconnected by lines of stitching permits these leaves to remain spaced from one another by their natural shape for circulation of air during curing. It will be noted that the combination of the line of loose stitching intermediate the marginal portions of the envelope and the restraining action of the envelope itself results in the leaves being securely held during and after the curing process despite the tremendous shrinkage in the leaf structure. Actually in prior art practice, shrinkage of the stems during the curing has resulted in considerable difficulties where the tobacco leaves have been tied at the stems and supported in this manner.

As pointed out above, whether the leaves are integrated with one continuous web (closely held against the web near the stem ends) or whether they are stabilized (loosely held against unrestricted movement relative to the web material) as preferred in a continuous envelope of webbing, this continuously moving combination of web and tobacco leaves is carried away from the stitching stations by conveyor **45** or any other suitable means to a vehicle following the harvesting machine where this product is accumulated. In the method of this invention, this vehicle following can be in the nature of a truck in which the continuous web and associated tobacco leaves is laid down in folded length until several hundred feet have accumulated and a satisfactory truckload has been reached; or, as described above, this continuous web and associated tobacco leaves can be accumulated on a reel carried by a vehicle until a large diameter roll, as great as eight or more feet in diameter, has been built up. In either case the web is severed, the loaded vehicle directed toward the tobacco barns and a new empty vehicle moved into place behind the harvesting machine to start accumulating another load of the web and associated tobacco.

When the load of web and associated tobacco reaches the tobacco barn, the web and associated tobacco is preferably suspended in the barn by the edge of the web contiguous to the tobacco stems with the tips of the leaves depending downwardly. The continuous web and associated tobacco leaves can be suspended in the barn in any suitable manner, as by wire hooks in zig-zag or other suitable configuration spanning the space between the poles in the tobacco barn. Suitable lengths of web and associated tobacco can be 300 and more feet long and the vehicle following the harvesting machine should be large enough to accumulate this much product.

Where desirable, a double width of web means can be passed through the process with the tobacco leaves laid on one-half the web, the other half of the web means being then folded over the tobacco leaves so that only one line of marginal stitching is needed to form the envelope.

Instead of collecting a continuous envelope of the netted tobacco after the continuous envelope has been formed by the connecting step of means **95, 97** and the connecting step of means **100, 103**, the continuous envelope and enclosed tobacco can be sheared into discrete lengths suitable for hanging in a tobacco barn. In such case, spaced parallel lines of stitching may, if needed, be formed transversely of the envelope following, or in lieu of, the connecting step of means **100, 103**, with the line of shearing being then made between the spaced lines of stitching. In this manner, packages of the tobacco leaves in the form of individual envelopes of the desired length closed at both ends can be obtained. After curing, the tobacco in such envelopes can be shipped to a tobacco production facility. The present invention also contemplates curing the tobacco in the envelopes of great length, as already described, and then forming the smaller packages or envelopes of cured tobacco for shipping purposes. In this way repeated handling of the individual tobacco leaves which results in considerable breakage and loss would be avoided and at the same time any broken fragments of the cured tobacco leaves within the packages would be retained.

Although stitching has been disclosed as the connecting means of the specific embodiment of the apparatus of the present invention and the connecting step of the specific variant of the method in respect to uniting the marginal portions of the continuous envelope, it will be obvious that the two webs may be formed of foraminous sheet material with contact adhesive on the opposing faces of the mating marginal portions of the two webs, so that any suitable means for continuously pressing the marginal portions together can be substituted for each of the elements **95, 97.**

To distinguish between the primary connection, which is the function of the stitching through the leaf material at the stem ends where only one web is used, and the relatively loose, positioning function of the stitching through the leaf material at the stem ends of the leaves where two webs are used, the term *integrate* has been used to designate the former method of attachment and the word *stabilize* used to designate the latter method of attachment, with the generic term *connect* being used to embrace both.

Although the present invention has been described and illustrated in connection with preferred embodiments and variants, it is to be understood that modifications and variations may be resorted to without departing from the spirit of the invention, as those skilled in this art will readily understand. Such modifications and variations are considered to be within the purview and scope of the present invention.

I claim:

1. A package comprising:

(a) a substantially flat envelope having opposed side walls of flexible web material connected along at least two opposite side edges,

(b) a plurality of cured whole tobacco leaves within the envelope, the tobacco leaves being arranged contiguous with one another and with substantially all the stems directed toward one of the connected side edges,

(c) a line of spaced connecting means passing through the tobacco leaves and through the web material of both opposed side walls of the envelope to thereby hold the tobacco leaves and the side walls of the envelope from substantial relative movement, the line of spaced connecting means being substantially co-

extensive with and intermediate the two opposite side edges.

2. The package of claim 1 in which at least one side wall is formed of foraminous material.

3. The package of claim 1 in which the web material of both side walls is foraminous.

4. The package of claim 1 in which the web material of the side walls is connected along all side edges.

5. The package of claim 4 in which at least one side wall is foraminous.

6. The package of claim 4 in which the web material of both side walls is foraminous.

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