

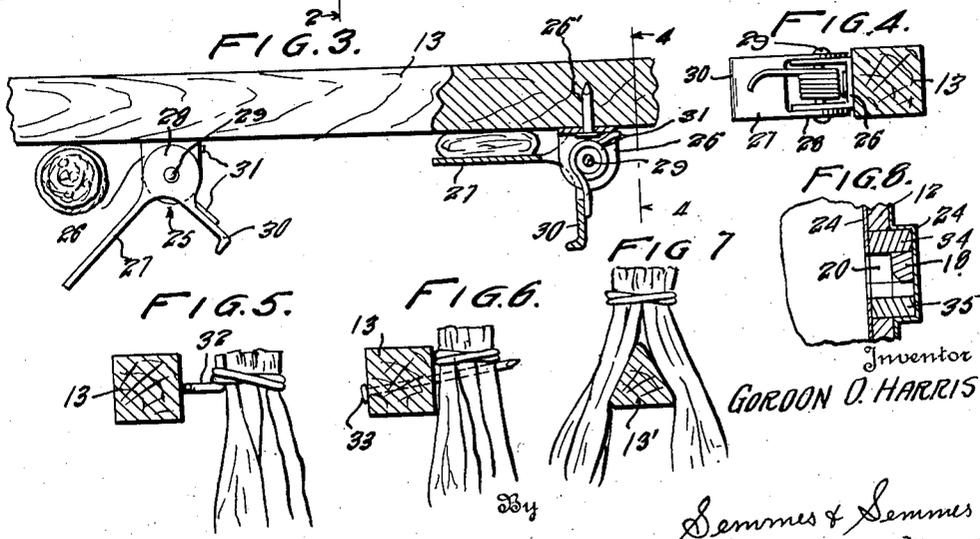
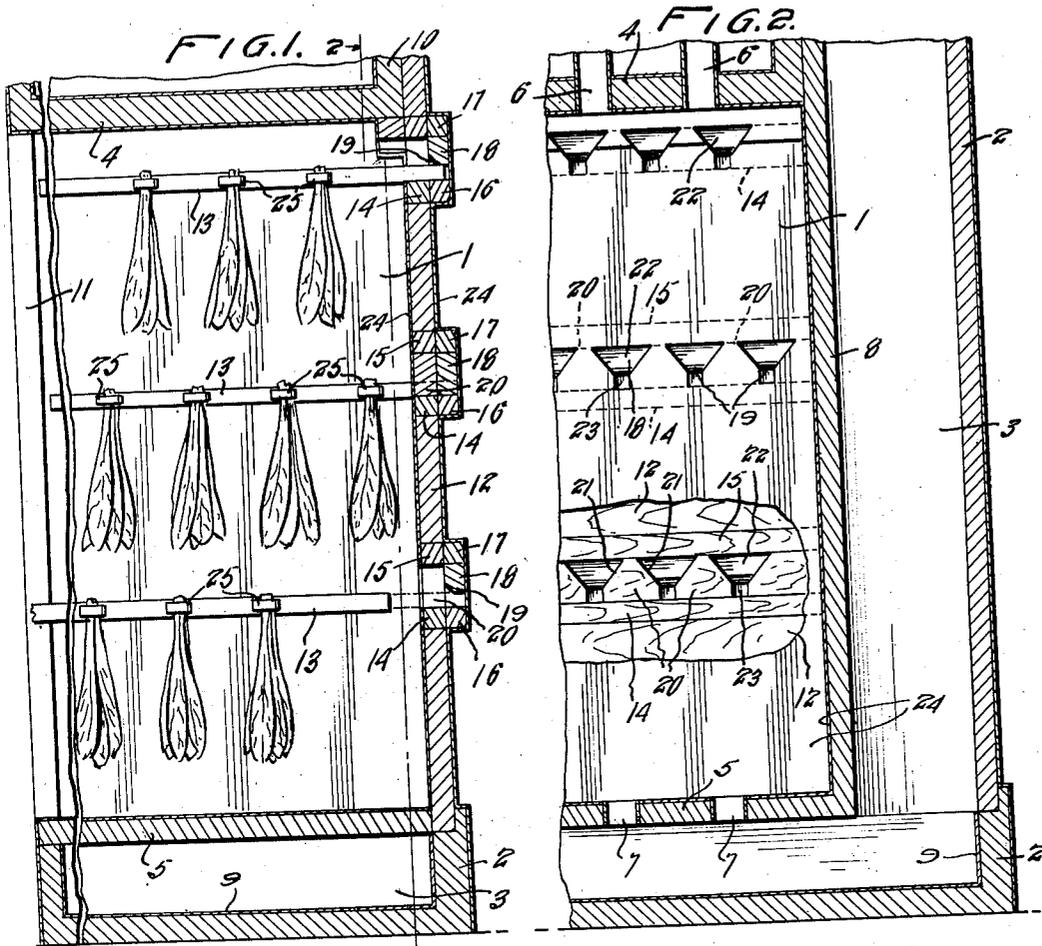
Dec. 4, 1934.

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1,982,990

CASING MACHINE

Filed July 22, 1929



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1,982,990

CASING MACHINE

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Application July 22, 1929, Serial No. 379,965

6 Claims. (Cl. 312-172)

This invention relates in general to the treatment of tobacco and more particularly has reference to construction of tobacco-carrying sticks and of a wall of a tobacco-treating device, which supports the tobacco-carrying sticks.

Several constructions have been developed for supporting tobacco in treating apparatus, but I have found that the structures heretofore employed do not serve adequately in treating apparatus in which a body of air or other gas is circulated. For instance, it is desirable that the tobacco-carrying sticks be removably positioned in the treating apparatus. The supporting means heretofore used were found to be disadvantageous when employed in the treating devices in which air is circulated, in that the supports caused eddy currents to be set up in the air flow, which affected the treatment of the leaves of tobacco nearest the obstructions.

The primary object of this invention is to devise structure for supporting tobacco in treating apparatus which is free from the disadvantageous features present in the structures heretofore employed.

Another object of this invention is to devise a tobacco-carrying stick having novel means for securing the tobacco thereto.

Yet another object of this invention is to devise a mechanism for effectively securing tobacco to a carrying stick without injuring the tobacco.

Still another object of this invention is to devise a wall construction adapted to detachably receive tobacco-carrying sticks.

A still further object of the invention is to devise a treating chamber having a wall construction adapted to support tobacco-carrying sticks in cantilever fashion.

With these and other objects in view, which may be incident to my improvements, the invention consists in the parts and combinations to be hereinafter set forth and claimed, with the understanding that the several necessary elements comprising my invention may be varied in construction, proportions and arrangement, without departing from the spirit and scope of the appended claims.

The present invention contemplates forming a wall of a treating chamber with a plurality of slots, into which are positioned reinforcing strips. The strips may be of such width that they extend through the wall of the chamber. A supporting strip is positioned between the extending portions of said strips and is affixed to the upper reinforcing strip. The lower reinforcing strip and the supporting strip serve as bearing surfaces to sup-

port a tobacco-carrying stick in cantilever fashion. In order to prevent side movement of the tobacco-carrying stick, a plurality of blocks are spaced apart between the reinforcing strips in the plane of the wall a distance sufficient to receive the tobacco-carrying sticks therebetween.

The sticks employed may be either square, triangular, or of other geometrical form in cross-section, and are provided with means for securing the tobacco to the sticks, which may then be positioned in the sockets provided in the supporting wall.

In order to make my invention more clearly understood, I have shown in the accompanying drawing means for carrying the same into practical effect, without limiting the improvements in their useful applications to the particular constructions which, for the purpose of explanation, have been made the subject of illustration. This invention, of course, is adaptable for use in connection with supporting articles other than hands of tobacco.

In the drawing:

Figure 1 is a sectional view of a tobacco-treating apparatus constructed in accordance with the present invention.

Figure 2 is a fragmentary sectional view taken on line 2-2 of Figure 1.

Figure 3 is a view of a tobacco-carrying stick provided with a plurality of resilient devices for clamping the tobacco to the carrying stick.

Figure 4 is a sectional view taken on line 4-4 of Figure 3, showing the constructional details of the resilient clamping device.

Figure 5 shows a tobacco-carrying stick provided with a hook on which is suspended a hand of tobacco leaves.

Figure 6 is a view similar to Figure 5 showing a different form of structure for affixing the tobacco to the carrying stick.

Figure 7 shows a modified form of tobacco-carrying stick.

Figure 8 is a detailed view of one form of wall construction.

In Figures 1 and 2 I have shown a chamber for treating tobacco, that is, a chamber in which tobacco is suspended and through which a current of air is circulated to condition the tobacco. The chamber 1 is a portion of a treating apparatus 2, which includes a conditioning chamber 3 and the products chamber 1. The conditioning chamber extends about the chamber 1 and is separated therefrom by partitions 4 and 5, provided with slots 6 and 7, respectively, and by side walls 8. The lower conditioning chamber may, if de-

sired, contain a water tank 9, and the upper conditioning tank may contain a tank 10, through which the extended walls of slots 6 pass. Air is circulated through the chamber 3, in which it is conditioned, and is then forced in the desired direction through the chamber 1.

The front wall 11 of the treating apparatus is provided with an opening through which material to be placed in and removed from the chamber 1 may be passed. A suitable closure or door may be provided for closing the opening.

The rear wall 12 of the treating apparatus is constructed to receive and horizontally support a plurality of tobacco-carrying sticks 13, to which are affixed hands of tobacco to be treated in the chamber 1.

This wall is provided with a plurality of slotted openings extending the full width of the wall and arranged at spaced intervals throughout the height of the wall. The slotted openings have positioned therein a plurality of reinforcing strips 14 and 15, respectively, which serve as means to reinforce the material of which the wall is constructed. Strip 14 also serves as a bearing member for the tobacco-carrying sticks. The reinforcing strips 14 and 15 extend across the width of the wall 12, as shown in Figure 2.

Positioned on the outside of wall 12, that is, on the side exterior of the chamber 1, are a plurality of supporting strips 16 and 17. Strip 16 is securely arranged in juxtaposition with the strip 14, and the strip 17 is correspondingly arranged relative to strip 15. This construction is clearly shown in Figure 1 of the drawing. Positioned between strips 16 and 17, and preferably affixed to strip 17, is a bearing strip 18. It will be noted from Figure 1 that strip 18 is arranged in a plane exterior of the plane of wall 12.

When in assembled position, strips 14 and 18 serve as the supports for stick 13, which is adapted to be inserted in the space between strips 16 and 18, as shown in the upper portions of Figure 1. Thus it will be understood that the tobacco-carrying stick is supported similarly to a cantilever beam.

In order to facilitate the insertion of the ends of stick 13 into the space provided between the strips 16 and 18, the corner of strip 18 is cut away, as indicated by reference numeral 19.

In order to properly space the tobacco-carrying sticks horizontally of the supporting structure, a plurality of blocks 20 are positioned between the strips 14 and 15 on the plane of wall 12. These blocks are spaced apart a distance sufficient to permit the easy insertion of stick 13 between the same. In order to prevent any delay in the operation of inserting the sticks in the sockets provided by the construction of strips and blocks, the blocks 20 have their upper edges cut away, as indicated by reference numerals 21, so that a relatively large space is provided between the upper portions of these blocks.

When placing the tobacco-carrying sticks 13 in place in the wall 12, it will be relatively easy to insert the end of the stick in the large spaces 22 provided between the upper portions of blocks 20. After the stick is once placed in the large triangular or pear-shaped recesses 22, the end of the stick may be allowed to drop into the space 23 formed between the lower portions of blocks 20. After the ends of the sticks 13 are positioned between the lower portions of blocks 20, they may be pushed back under the supporting strip 18, which securely retains the sticks 13 in operative position. When the structure of wall 12 is

complete, as herein described, the outer and inner surfaces may be covered with sheet metal 24 or other desired material to protect the surfaces.

While in the foregoing description the supporting or bearing strips have been described as comprising five separate strips, I wish it to be clearly understood that the strips 15 and 17 may be formed integrally, and the strips 14 and 16 may be formed integrally. In Figure 8 there is shown a wall construction having bearing strips 34 and 35, which extend through the wall 12. This construction is desirable in many instances, since it provides a relatively rigid support for the tobacco-carrying sticks 13.

While it is obvious that various types of tobacco-carrying supports may be secured in the sockets provided in the wall 12, I have, nevertheless, shown several forms of tobacco-carrying sticks in Figures 3 to 7, inclusive. In Figures 3 and 4 I have shown a stick which is square in cross section, and which is provided with a plurality of tobacco-engaging clips 25. Clips 25 are preferably of the type which are maintained in operative position by means of a spring or other resilient means. As shown in Figures 3 and 4, a support 26 in the form of a clevis is secured to the tobacco-carrying stick 13 by means of a nail or other securing means 26'. Pivotaly secured to the supporting clevis 26 is a clip member 27 provided with a hinge portion 28 adapted to cooperate with the supporting clevis 26. A pintle 29 extends through the hinge portion 28 and the supporting clevis 26, so that the clip 27 may be free to move relatively to the supporting clevis.

The clip 27 is provided with an arm 30 extending at substantially right angles to the clip portion 27, which serves as a means for operating about the pintle 29 and engages a portion of the supporting clevis 26 and the portion of the arm 30, so as to force the clipping arm into engagement with the stick 13. The spring 31 is of such size that the clipping arm 27 will be forced against the body portion of stick 13, so as to frictionally secure a hand of tobacco between the clipping arm and the tobacco-carrying stick 13. When a hand of tobacco is to be mounted on the stick 13, the clip is moved into the position shown on the left of Figure 3. After the tobacco is positioned as shown, the clip is allowed to engage with the tobacco. The spring forces the clipping arm into engagement with the tobacco sufficiently to retain the hand of tobacco in fixed relation to the stick 13.

The stick construction just described is very desirable, since tobacco which is dry and very crisp can be secured to the support by means of the supporting clips without breaking or otherwise injuring the hand of tobacco.

In Figure 5 I have shown a modified form of stick holder, which is provided with a plurality of hooks 32, onto which a hand of tobacco may be positioned. As shown in this figure, the tobacco is secured on the hook by means of the material for retaining the several leaves of tobacco in hand formation.

If desired, the structure shown in Figure 5 can be further simplified by merely driving a nail 33 through a tobacco-carrying stick, so that the pointed end of the nail will project beyond the stick, so as to provide a support onto which a hand of tobacco may be placed. In this formation the tobacco may be so placed on the nail that the stems will be pierced, or the leaves may be partially separated, so that the same may be

supported on the nail without piercing the stems of tobacco.

When the tobacco leaves are sufficiently pliable to be separated, a stick structure such as shown in Figure 7 may be employed. As shown in this figure, a tobacco-carrying stick 13', which is triangular in cross section, is adapted to be positioned so that one of the apexes of the triangular formation is positioned upwardly. When a hand of tobacco is placed on the stick, the spreading apart of the leaves will be gradual, so as to prevent any breakage thereof. It will be appreciated that the triangular form of the tobacco-carrying stick may be supported in the wall structure hereinbefore described, or, if found desirable, the triangular sticks may be provided with an end portion which is square in cross section, so that it may be fitted into the sockets provided in the wall structure 12.

It will be appreciated from the foregoing description that the invention provides a wall construction which may be easily and economically constructed, and which effectively serves to retain article-carrying sticks in desired positions.

The construction herein described is particularly advantageous for use in industries in which it is desirable to maintain material-carrying sticks or supports in a definite relationship, because of the close-fitting socket construction afforded by the present invention. Also the guide construction permits the sticks to be easily and quickly inserted into the close-fitting sockets. The particular stick constructions are of peculiar utility under various conditions of practical operation.

While the invention has been described in connection with a tobacco-treating apparatus, I wish it to be clearly understood that it may be employed in apparatus for treating various other materials, or in any type of apparatus in which articles are to be suspended.

While I have shown and described the preferred embodiment of my invention, I wish it to be understood that I do not confine myself to the precise details of construction herein set forth, by way of illustration, as it is apparent that many changes and variations may be made therein by those skilled in the art without departing from the spirit of the invention or exceeding the scope of the appended claims.

I claim:

1. In a support construction a stick-supporting wall having a plurality of horizontal slots therein, a plurality of reinforcing strips positioned in said slots, a plurality of blocks mounted between said strips and spaced apart to provide openings therebetween to receive a tobacco-carrying stick, and means associated with said reinforcing strips and adjacent thereto and cooperating therewith for supporting tobacco-carrying sticks.

2. In a support construction a stick-supporting wall having a plurality of horizontal slots therein, a plurality of reinforcing strips positioned in said slots, a plurality of blocks mounted between said strips and spaced apart to provide openings therebetween to receive a tobacco-carrying stick, said strips being of a width greater than the thickness of the wall and extending exteriorly thereof, and a supporting strip mounted exteriorly of the wall and positioned between said reinforcing strips for supporting a tobacco-carrying stick.

3. In a material-treating apparatus a stick-supporting wall having a plurality of horizontal slots therein, a plurality of reinforcing strips positioned in said slots, a plurality of blocks mounted between said strips and spaced apart to provide openings therebetween to receive a material-carrying stick, a plurality of additional reinforcing strips mounted on the exterior of the wall in juxtaposition to said first mentioned reinforcing strips and means between said second mentioned strips adapted to engage with a material-carrying stick.

4. In a support construction a stick-supporting wall having a plurality of horizontal slots therein, a bearing strip mounted in the lower portion of each slot, a second bearing strip positioned on one side of said wall and offset from the first named bearing strip and a tobacco carrying stick adapted to be supported in cantilever fashion by said bearing strips.

5. In a material treating apparatus a wall for supporting material carrying sticks in cantilever fashion, said wall having a horizontal slot therein, facing strips mounted on the upper and lower faces of the slot, the distance between the facing strips being greater than the thickness of the material carrying sticks to be received in the slot, and a bearing strip carried by the upper facing strip and spaced from the lower strip adapted to receive the upward thrust of the stick when mounted in the slot.

6. In a material treating apparatus a wall for supporting material carrying sticks in cantilever fashion, said wall having a horizontal slot therein, facing strips mounted on the upper and lower faces of the slot, the distance between the facing strips being greater than the thickness of the material carrying sticks to be received in the slot, a bearing strip carried by the upper facing strip and spaced from the lower strip adapted to receive the upward thrust of the stick when mounted in the slot, and pentagonal blocks mounted in the slot and spaced apart to provide openings in which the material carrying sticks are received.

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