

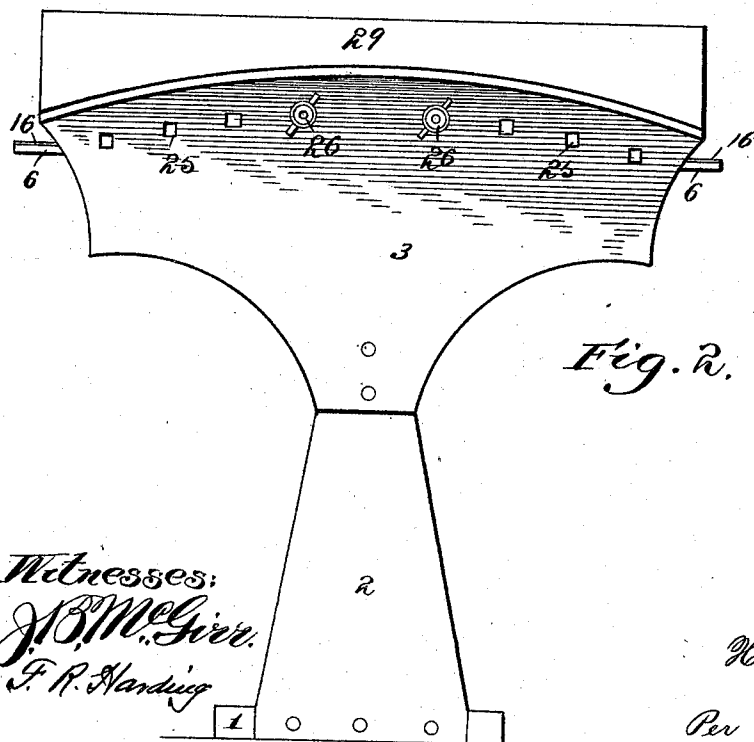
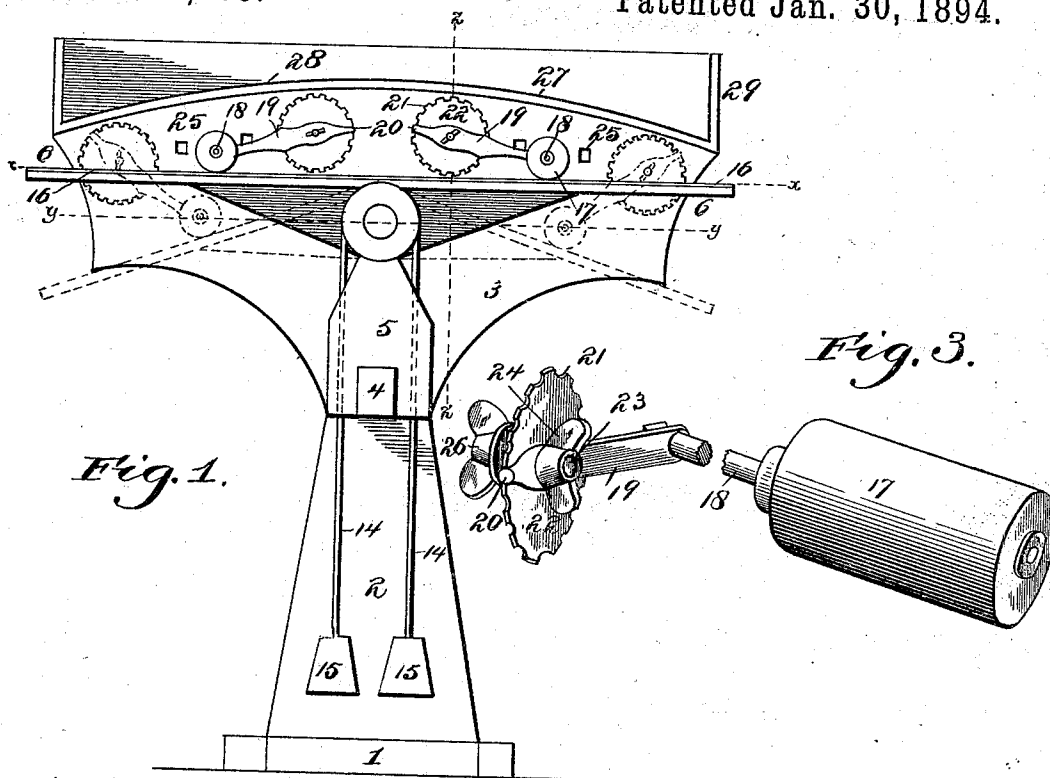
(No Model.)

2 Sheets—Sheet 1.

H. ZWICKER.
TOBACCO BOOKING TABLE.

No. 513,605.

Patented Jan. 30, 1894.



Witnesses:
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F. R. Harding

Inventor.
Henry Zwicker,
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Attys

(No Model.)

2 Sheets—Sheet 2.

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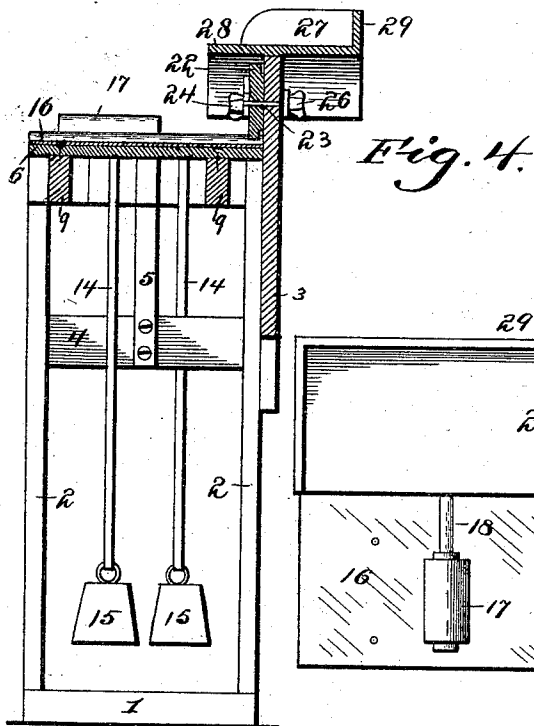


Fig. 4.

Fig. 5.

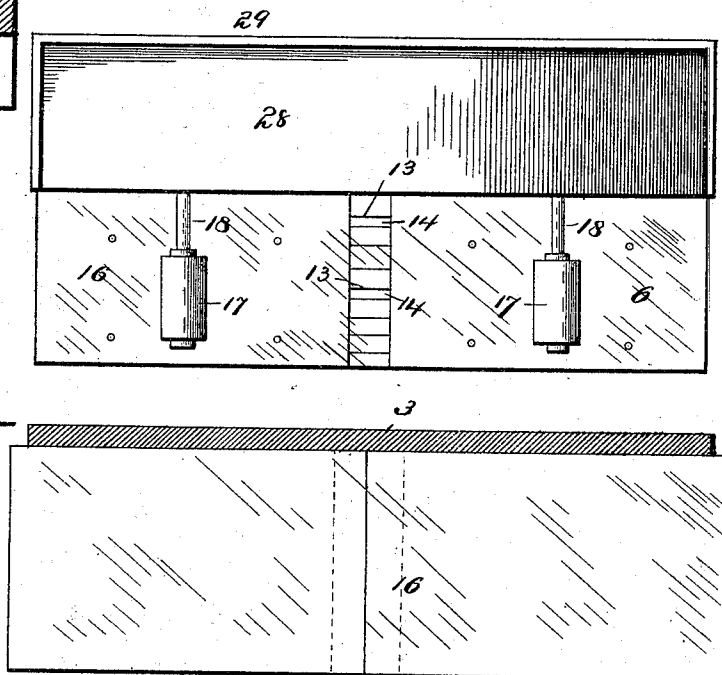


Fig. 6.

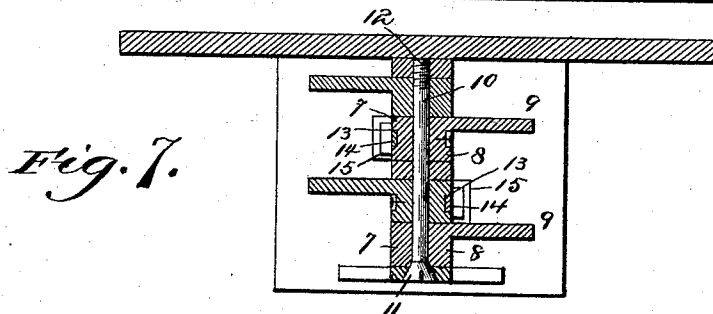


Fig. 7.

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UNITED STATES PATENT OFFICE.

HENRY ZWICKER, OF STOUGHTON, WISCONSIN.

TOBACCO-BOOKING TABLE.

SPECIFICATION forming part of Letters Patent No. 513,605, dated January 30, 1894.

Application filed July 21, 1892. Serial No. 440,823. (No model.)

To all whom it may concern:

Be it known that I, HENRY ZWICKER, a citizen of the United States of America, residing at Stoughton, in the county of Dane and State of Wisconsin, have invented certain new and useful Improvements in Tobacco-Booking Tables, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to tobacco booking tables; and has for its object to provide a device of this class whereby the operation of booking tobacco may be accomplished with ease, rapidity, and safety; moreover, to adapt my improvement whereby it may be employed for booking various sizes and quantities of tobacco without risk of marring or injuring the same.

This invention is in the nature of an improvement upon my concurrent application for similar subject-matter, Serial No. 431,923, filed on the 5th day of May, 1892.

For the attainment of these objects, and for other purposes hereinafter enumerated, my invention comprises, in brief, a certain organization of parts, and details of structure, all of which will be more fully described hereinafter.

The novelty of my invention resides in certain features embraced in the appended claims which are intended to accord in their scope and meaning with the prior state of the art and the existing law.

In the accompanying drawings I have shown a certain arrangement of parts and devices which I deem adequate for successfully carrying out my invention in practice; however, I wish to here state and distinctly emphasize that I do not confine myself to the exact features and details of construction shown, since it is manifest that numerous changes as to form, proportion, and minor details of structure, may be made without in the least deviating from the spirit and scope of the invention as defined by the claims.

Referring to the said drawings forming a part of this specification:—Figure 1 is a front elevation of a machine embodying my improvements, the front upright or standard being detached to disclose the arrangement and disposition of the counter-weights behind the same. In this view the clamping

rollers are shown in full lines in one position and in dotted lines in a different position. Fig. 2 is a rear elevation of Fig. 1, showing the adjusting holes for the clamping rollers, located in an arc of a circle in the back-plate of the machine. Fig. 3 is an enlarged detail view in perspective of one of the clamping rollers, and auxiliary devices for setting and adjusting the same. Fig. 4 is a transverse vertical section taken on the plane indicated by the line $z-z$ in Fig. 1. Fig. 5 is a top plan view of Fig. 1. Fig. 6 is a horizontal section taken on the plane indicated by the line $x-x$ in Fig. 1; and Fig. 7 is a similar view on the line $y-y$ of Fig. 1.

In all the views of the drawings, like numerals of reference indicate like or corresponding parts.

In carrying out my invention, I provide a framework of suitable shape, size, and configuration to support and accommodate the incumbent and operating parts of the machine. In this particular instance, the framework comprises a rectangular base-plate, 1; the uprights or standards, 2, rising vertically from the base-plate and spaced a prescribed distance apart to form back and front standards; and the back-plate, 3, supported on top of and secured to the back standard, 2, in any suitable manner. At a certain distance above the base-plate the standards 2 are tied and braced by the horizontal cross-brace, 4, which, in turn, holds the lower end of the short standard, 5, placed intermediate of the two standards, 2, and terminating at its upper extremity approximately in the same horizontal plane as the front and back standards.

The operating table comprises twin leaves or sections, 6, each consisting of a rigid rectangular plate of requisite area and thickness. These twin sections are hinged together at their adjacent or meeting edges in a peculiar manner, as will now be explained:—The table hinge consists of four members, 7, two for each section. Each member comprises a circular boss or collar, 8, and a laterally extending wing, 9, formed integral with said collar, and as shown in Fig. 1, is in the form of a webbed rib projecting under and supporting the particular leaf or section to which it is secured. Thus, for each table section there are two separate members, 7, of the hinge sev-

erally attached to the under side of said section in position to support the same and spaced apart a certain distance. The circular collar or boss, 8, of each member is centrally and longitudinally pierced by an axial bore to receive the hinge-rod or pintle, 10, which supports all four members, 7. As shown clearly in Figs. 5 and 7, the hinge-members are alternately lapped and disposed upon the hinge-rod, that is, the two members forming a pair for one table leaf or section have their two collars, 8, separated by an intervening member of the opposite pair for the other table leaf or section. The hinge-rod is passed through the coincident axial bores of all four members in order to form a hinge-support for the same, and, in turn, is supported at its front and back ends, respectively by the front and back standards, 2. Centrally the hinge-rod is supported by the short standard, 5, and is rendered detachable by being provided with a screw-head, 11, and with a screwthreaded rear extremity, 12, whereby it may be readily unscrewed from its fixed position in the standards. As shown in Fig. 7, the four collars 8 are placed in juxtaposition throughout the length of the hinge-rod in such manner that they are permitted independent movement, yet are not separated sufficiently to expose the rod or to permit any space or crevice to exist between any two collars. Such compact arrangement and close association of the hinge-members is facilitated by having the upper end of the short standard, 5, divide the collars 8 centrally, leaving two on each side thereof. As shown in Fig. 7, the two collars which are adjacent to the central standard 5, belong to different table sections or leaves, and each one of these two collars is provided exteriorly with an annular channel or groove, 13, located centrally of the periphery of said collar and running clear around the same. Each one of these grooves or channels, 13, is designed to receive a strap or other flexible connection which holds a suitable counter-weight. In one instance, the upper terminal of one strap, 14, is riveted or otherwise secured in the channel or groove, 13, of one collar 8, at a point on the same side where the table section or leaf is attached to the hinge-member of that particular collar, whereas in the other instance the other strap is similarly secured to the other collar in the groove or channel on the opposite side where the other table leaf or section is secured to the hinge-member of that particular collar. Thus, it will be understood that the two straps severally attached to the two grooved collars pass over their respective collars in opposite directions and depend on opposite sides of the hinge-rod.

To the lower end of each strap 14 is secured a weight 15 tending by reason of the arrangement of its strap and the gravitating tendency of the weight to swing the particular leaf or section which it controls in an up-

ward direction. Thus, if there were no limiting agency to prevent, the weights would serve to swing the two table leaves up until they met in the same vertical plane as that occupied by the hinge-rod.

The upper surface of each table leaf or section is covered by a covering, 16, preferably celluloid, which forms a smooth surface for the tobacco deposited thereon.

As a means for clamping all sizes and lengths of tobacco irrespective of the positions of the table sections, I provide the clamping rollers shown clearly in Fig. 3, and also shown in Figs. 1, 4, and 5. There are two clamping rollers and adjusting devices for each, one on each side for each table section or leaf. 17 is a suitable solid roller rotatably mounted on the shaft, 18, which, in turn, is secured at its rear end to the crank-arm 19. The upper or opposite end of the arm 19 is provided with catch-pawl, 20, adapted to engage the peripheral notches, 21, of the disk, 22, in such manner that the roller may be set in any degree of a circle. The upper end of the arm 19 is detachably and adjustably fixed to the retaining bolt, 23, by means of the clamping nut, 24, fitted to the inner end of said bolt which passes through an orifice in the arm 19. This bolt, 23, is squared in its body portion to fit the series of square adjusting holes, 25, arranged in an arc of a circle across the whole width of the back-plate; and such bolt is detachably secured in any of said holes by the clamping nut 26 on the rear end of same. By means of this construction the clamping roller on each side can be set at any angle to coincide with the angle of deflection of the table, or can be adjusted to contact with any part of the upper surface of a leaf or section.

Directly above the operating table, and within convenient reach of the operator is a shelf, 27, having a convex sloping bottom, 28, and sides, 29. This shelf is designed to form a convenient receptacle for unbooked tobacco, the sponge and sponge-cup, &c.

In operation, the clamping rollers are used to clamp and hold the different lengths and sizes of tobacco as they are booked upon the table, and the weights attached to the straps serve as counter-weights to keep the hinged sections up against said rollers. This is an important advantage of my improvement inasmuch as tobacco being very tender and requiring skillful manipulation to prevent tearing the same, the weights will gradually and uniformly yield as the weight increases upon the operating table and the sections descend. If springs were substituted to fulfill the functions of the weights and straps, their resistance would gradually increase as they were compressed, which increased resistance would subject the tobacco to greater friction, and consequently, would increase the danger of tearing it. Therefore, I desire it to be here understood that I do not regard a spring or springs in any wise the equivalent of my weight or weights.

Owing to my peculiar setting and adjusting devices for the clamping rollers, I can adjust the same to any length of tobacco or to any thickness of the same on the booking table.

5 The arrangement of the adjusting holes in the back-plate in an arc of a circle clear across the whole width of the same enables the roller and attached parts to be moved over the surface of the table in any desired position to
10 accommodate any length of tobacco, and on the other hand, by means of the disk and catch-pawl together with the crank arm connection of the roller, the clamping roller can be adjusted to suit any thickness of the book
15 upon the table or to meet any angle of deflection of the leaves or sections. By changing the position of the roller one notch sometimes suffices for the variation from one size shorter to longer leaves or vice versa.

20 Another important advantage of this invention is the peculiar manner of hinging the table sections together so that no cavity or opening between the hinged edges of the same is made. The hinge-members being closely
25 associated and being round, no crease can be made in the tobacco, nor can any obstruction occur whereby the tobacco might become torn. This form of hinge, taken in conjunction with the uniform resistance of the counterweights,
30 provides a construction whereby the operation of booking tobacco can be conducted with ease and safety.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a tobacco booking table, the combination, with the operating table comprising hinged leaves or sections; of suitable connections severally attached at their upper extremities to said leaves or sections and carrying
40 suitable weights on their lower depending ends; a suitable support over which the said connections pass and move, the said support being located on the machine intermediate of the table sections or leaves and the
45 weights as set forth.

2. In a tobacco booking table, the combination, with the operating table comprising leaves or sections hinged together at their
50 meeting edges; of straps attached severally at their upper ends to the hinges of said leaves or sections, passing over said hinges, and depending in opposite directions therefrom; and gravitating weights severally carried by the lower ends of said straps.

3. In a tobacco booking table, the combination, with twin leaves or sections forming an operating table; of adjustable clamping rollers adapted to hold the table leaves or sections
60 against upward movement; straps severally attached at their upper ends to the said

leaves or sections and at their lower ends severally carrying suitable weights; and a suitable support located on the machine intermediate of the weights and the said leaves or
65 sections, and designed to act as a bearing for the straps passing over the same.

4. In a tobacco booking table, the combination, with hinged leaves or sections forming an operating table; of clamping rollers severally mounted and transversely adjustable and
70 interchangeable in a support formed by a portion of the frame projecting above and over the operating table, each roller being movable in a circle about a temporarily fixed
75 support; the support and pawl and ratchet mechanism for setting each of said rollers in different relative positions within said circle.

5. In a tobacco booking table, the combination, with the table leaves or sections; of a
80 hinge connecting the meeting edges of said leaves or sections, said hinge comprising a plurality of members rotatably mounted upon a hinge-rod and closely associated thereupon in such manner that no appreciable opening
85 intervenes between the parts encircling said hinge-rod, and each hinge-member constituting an integral or component part of a table leaf or section; and means for operating the
90 said leaves or sections.

6. In a tobacco booking machine, the combination, with the operating table comprising hinged sections; of clamping rollers severally for said sections; a crank-arm for each roller; a catch-pawl for each crank-arm; a notched
95 disk for the catch-pawl; and a support for the disk and crank-arm formed by or fitted upon the framework of the machine.

7. In a tobacco booking machine, the combination, with the hinged table sections; of
100 clamping-rollers, severally for said sections, detachably and adjustably fitted in holes in the back-plate of the machine; and the back-plate provided with a series of holes for the
105 clamping rollers, said holes being arranged in an arc of a circle and extending across the whole width of the back-plate.

8. In a tobacco booking table, the combination of the booking table comprising two hinged leaves or sections; the framework comprising vertical standards supporting the
110 booking table, and a back-plate located behind and above the booking table; and a shelf or receptacle formed upon and carried on the top of the back-plate in operative and accessible
115 position to the booking table.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY ZWICKER.

Witnesses:

BEN. E. WAIT,

A. T. TORGERSON.