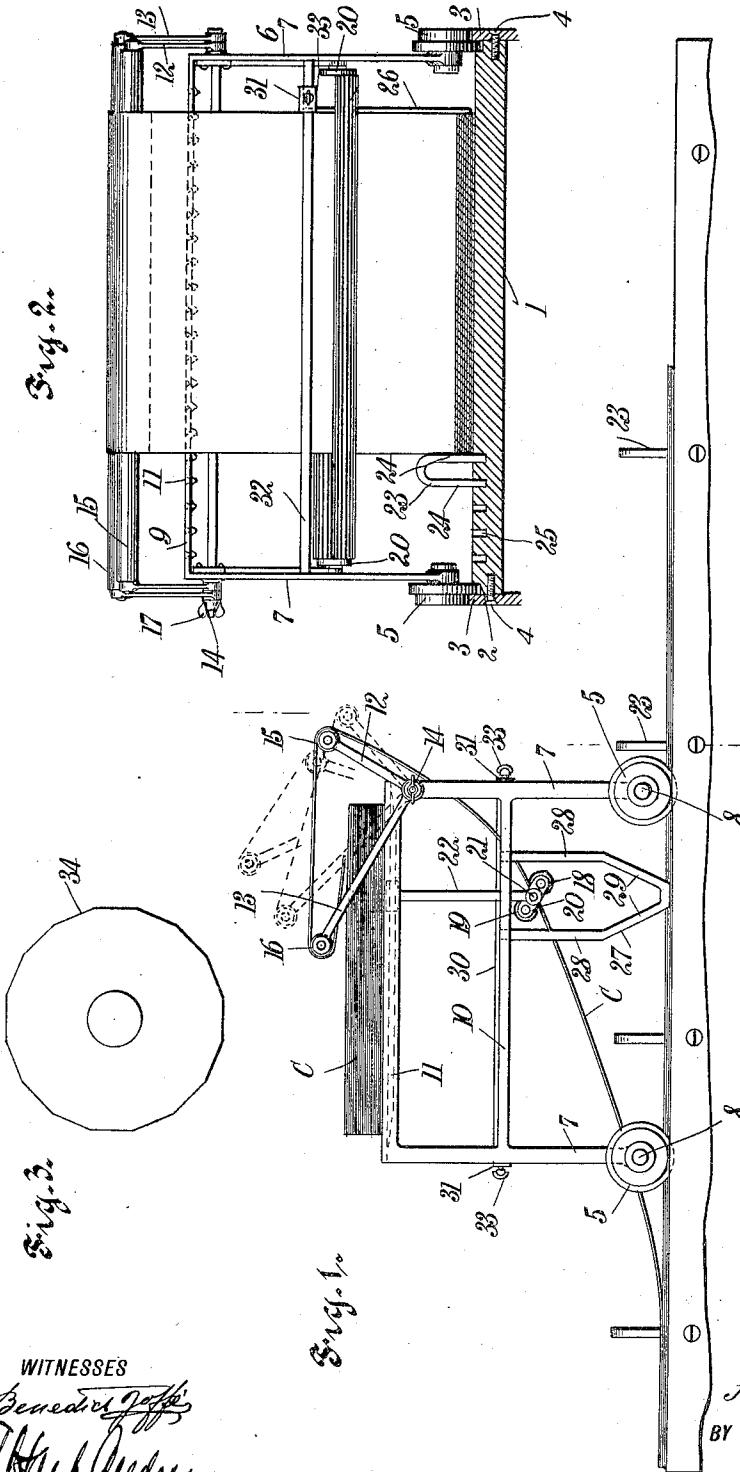


J. LAUGHTON.
CLOTH PILER.

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1,057,350.

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CLOTH-PILER.

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To all whom it may concern:

Be it known that I, JOHN LAUGHTON, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Cloth-Piler, of which the following is a full, clear, and exact description.

The present invention relates to cloth pilers and more particularly to cloth pilers adapted for use in handling fine textile fabrics such as silks used in manufacturing umbrellas and parasols.

As is well known to those skilled in the art, fine textile fabrics for use in manufacturing umbrellas and parasols come in the form of folded bolts, that is to say, a bolt formed of a plurality of folds of relatively short length, thus when opened out forming a pile of superimposed layers of material, which at each end are doubled or folded back upon themselves. Prior to cutting from this material the segmental pieces employed in manufacturing umbrellas and parasols, this bolt of fabric is drawn out and laid upon a relatively long cutting table in layers which extend for a greater or less length along the table folded back upon themselves at either end and forming a pile similar to the original bolt but many times longer, and from which pile of superimposed layers the segmental pieces are cut. It is for the purpose of piling this fabric upon a cutting table that the present machine has been produced, which comprises a relatively long table over which travels a cloth laying carriage which supports the original bolt of fabric and which pays out the fabric and deposits it in a pile of superimposed layers upon the cutting table as said carriage is moved along the same.

The object of the invention is to provide an improved construction of carriage, also to provide guides which acting upon the material as it is paid out from the cloth laying carriage, causes it to be properly laid and positioned on the cutting table.

To the above end, the present invention consists of the improved cloth piler and the devices and combinations of devices which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, constituting a part of this specification, in which similar characters

of reference denote corresponding parts in all the views and in which—

Figure 1 shows a side elevation of the top portion of a cutting table, looking at the back of the apparatus, and the cloth laying carriage illustrating the mode of operation of the guides; Fig. 2 shows a view somewhat enlarged illustrating a rear view of the carriage, the table being shown in transverse section; and Fig. 3 shows an enlarged end view of one of the guide rollers.

The apparatus comprises a suitable table, the top of which is shown at 1, and which is of indefinite length, being considerably longer than it is wide and supported on legs or standards not shown, to which the top may be secured in any suitable or convenient manner. Extending along the edges of the top 1 are rabbeted grooves 2, and to the side edges of the table are secured the rails 3, which are preferably of metal, secured thereto in any suitable manner as by means of the screws 4, and which combining with the rabbeted grooves 2 act to support and guide the wheels 5 of the cloth laying carriage 6. The carriage 6 comprises the vertically extending legs or standards 7 to the lower ends of which the wheels 5 are pivotally mounted upon the studs 8. The upper ends of the legs or standards 7 carry a cloth supporting top 9, and the opposite pair of legs 7 will be connected by the longitudinally extending braces 10. These parts may be constructed of any suitable material and secured together in any suitable manner, or as shown in the drawing, the top 9, legs 7 and braces 10 may be formed integrally of some suitable strong but light sheet metal. The supporting top 9 receives and supports the bolt of cloth as it comes from the mill opened out as shown in the drawing at C to form a pile of superimposed layers, and as the material is comparatively light and slippery, the top of the support 9 will be provided with longitudinally extending parallel grooves 11 which stop short of the opposite ends so that as the pile of cloth C is placed thereon, it will to a certain extent force the air from the grooves and thus form a more or less pneumatic frictional connection between the pile of cloth C and the supporting top 9 of the table.

At or near one end of the supporting top 9, the carriage 6 is provided with the stand-

ards 12 and 13, the latter being somewhat longer than the former, there being a pair of the standards pivotally mounted at 14 upon opposite sides of the carriage at or near one end. Each pair of standards 12 and 13 carry guide rollers 15 and 16, the guide roller 15 extending forward toward the right as the apparatus is viewed in Fig. 1, and the standards 13 extending rearward toward the left, and thus the rollers 15 and 16 are supported in a plane above the supporting top of the carriage one in advance of one end thereof, and the other over the top between the ends.

As shown in dotted lines in Fig. 1, the standards 12 and 13 are capable of independent adjustment to position the guide rollers 15 and 16 at various points relatively to the supporting top 9 of the table, and they are held in the adjusted positions to which they may be placed by means of the winged nuts 17. The cloth C passes from the pile over the rollers 15 and 16 and thence downwardly between the vertical standards 7 at one end of the table, and thence between a pair of guide rollers 18 and 19 which are supported beneath the table in pivoted carriers 20 which are mounted upon pivots 21 supported in the lower end of the hangers 22. The carriers 20 may be rocked about the pivots 21 so as to adjust the angular disposition of the guide rollers 18 and 19.

As shown clearly in Fig. 1, the cloth C passes between the guide rollers 18 and 19, and thence is deposited upon the top of the table 1. It is essential that the cloth be regularly piled so that the edges of the superimposed layers will be disposed in correct horizontal position with relation to the edges of other layers in the pile, and for this purpose, the table is provided with a guide 23 extending vertically from its top and along and adjacent to one of its edges. The guides in the illustrated embodiment of the invention comprise a plurality of independently adjustable guides which are adapted to be fixed to the table top in longitudinal alinement with each other. The particular form of guide shown consists of a substantially inverted U-shaped metallic staple, the parallel legs 24 being adapted to fit into adjacent sockets 25 which extend inward in alinement with each other and arranged transversely to the top of the table 1 and along one edge thereof.

It will be observed that as the cloth C is drawn off from the carriage 6, one edge thereof will fall against and be guided by the guides 23, and in order to insure that the cloth will properly fall with relation to the guides 23, there is provided a depending guide 26 mounted upon the carriage 6, the lower end of which closely approximates the upper surface of the table 1, as shown clearly in Figs. 1 and 2 of the drawing. The guide

26 preferably consists of a skeleton frame 27 made of some light but strong sheet metal, and comprising the substantially vertical members 28, and lower inclined or converging members 29 connected together at their lower ends, and which at their upper ends are mounted upon a longitudinally extending rod or bar 30. The bar 30 is provided at its opposite ends with sleeves 31 which take over and are supported upon transversely extending cross bars 32 connecting the vertical standards 7 at opposite ends of the carriage. The sleeves 31 are arranged to slide along the bars 32 so as to position the depending guide 26 toward and from the line of guides 23 so as to adjust the spaces between the guides 23 and 26 to the width of fabric being at any given time in course of piling upon the table. The sleeves 31 carry winged screws 33, by means of which they may be fixed to the supporting bars 32 and thus hold the depending guide 26 in its adjusted position. The rollers 15, 16 18 and 19 will preferably be provided with polygonal surfaces 34 as shown clearly in Fig. 3, which will act to put somewhat of a tension on the fabric as it passes over the rollers and assist in smoothing out the fabric, causing it to be deposited in a proper manner upon the pile being laid upon the table.

It will be observed that the depending guide 26 incloses and is adjustable along the lower guide rollers 18 and 20, and that in operation, it acts upon one edge of the fabric as it is deposited upon the pile, while the other edge will be guided by the guide which extends upwardly from the top of the table. By the employment of the depending guide 26 mounted upon the cloth laying carriage, I obviate the necessity of providing two lines of guides located upon the opposite longitudinal central line of the table, and thus one edge of the table is left entirely free from fixed guides so that the usual cutting machine may be employed without the necessity of removing such guides and leaving a free and unobstructed table top along one side of the cutting table.

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

1. In combination, a line of independently adjustable vertically extending guides fitted to the top of said table along and adjacent to one edge thereof, a cloth laying carriage movable along said table, a downwardly extending guide carried by said carriage and having its lower end near the surface of the table in position to engage one edge of the fabric deposited on the table, and a pair of guide rollers carried by said carriage and extending at right angles to the downwardly extending guide.

2. In combination, a table, a line of inde-

pendently adjustable vertically extending guides fitted to the top of said table along and adjacent to one edge thereof, a cloth laying carriage movable along said table, a downwardly extending guide carried by said carriage and having its lower end near the surface of the table arranged to engage with one edge of the fabric deposited on said table, a laterally adjustable support for said guide, and parallel guides for the fabric located above and extending at right angles to the adjustable guide.

3. In combination, a table, guide rails extending along the opposite edges of said table, a cloth laying carriage having wheels supported by said guide rails, a cloth supporting top on said carriage, guide rollers adjustably mounted on said carriage above the top thereof, guide rollers mounted upon said carriage below the top thereof, and a guide extending downward adjacent to the latter guide rollers and having its lower end

near the top of the table embracing and movable with relation to the lowermost guide rollers.

4. In combination, a table, a cloth laying carriage arranged to travel longitudinally along said table, a supporting top carried by said carriage, guide rollers extending laterally across said carriage in a plane above the supporting top thereof, a pair of parallel guides arranged beneath the supporting top and extending transversely thereof, and a laterally adjustable edge guide carried by said carriage and depending therefrom with its lower end adjacent to the surface of the table.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN LAUGHTON.

Witnesses:

JOHN P. DAVIS,
PHILIP D. ROLLHAUS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."