

G. SCOTT.
CLOTH CUTTING MACHINE.
APPLICATION FILED APR. 14, 1911.

1,061,782.

Patented May 13, 1913.

2 SHEETS-SHEET 1.

Fig. 1.

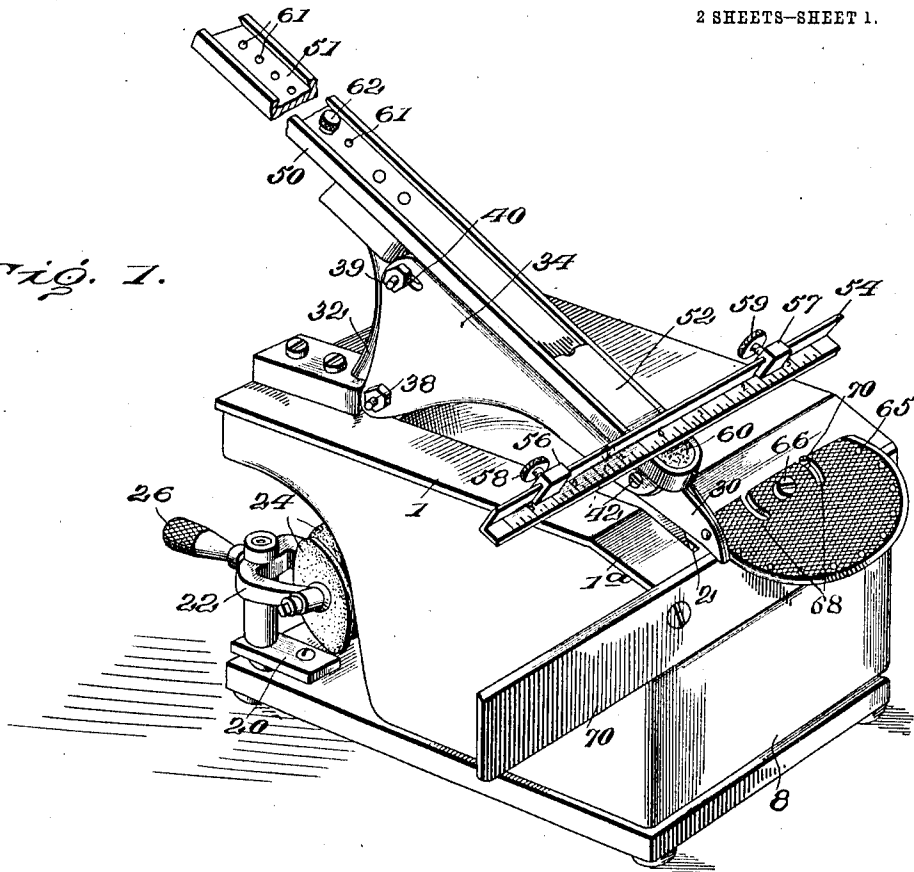
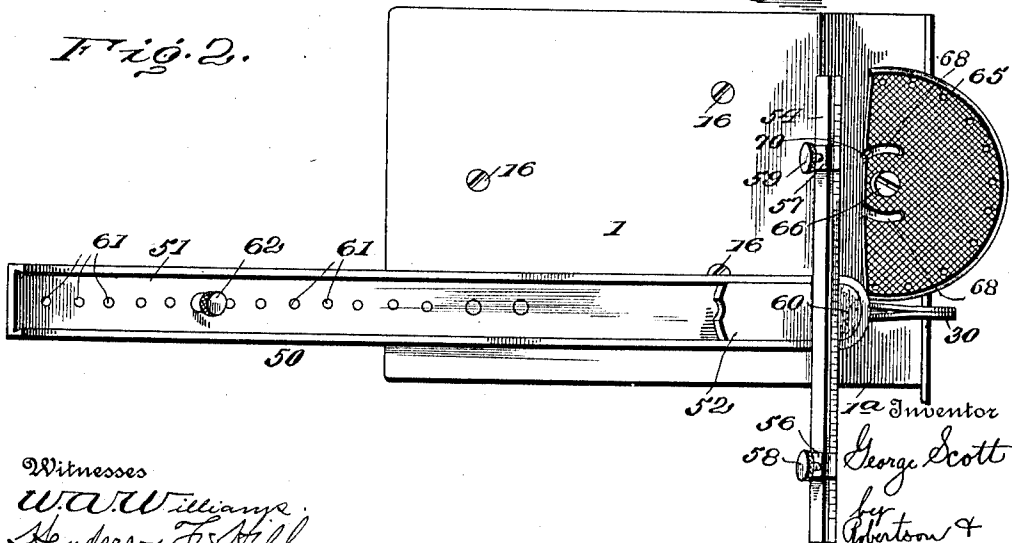


Fig. 2.



Witnesses
W. W. Williams
Anderson T. Hill

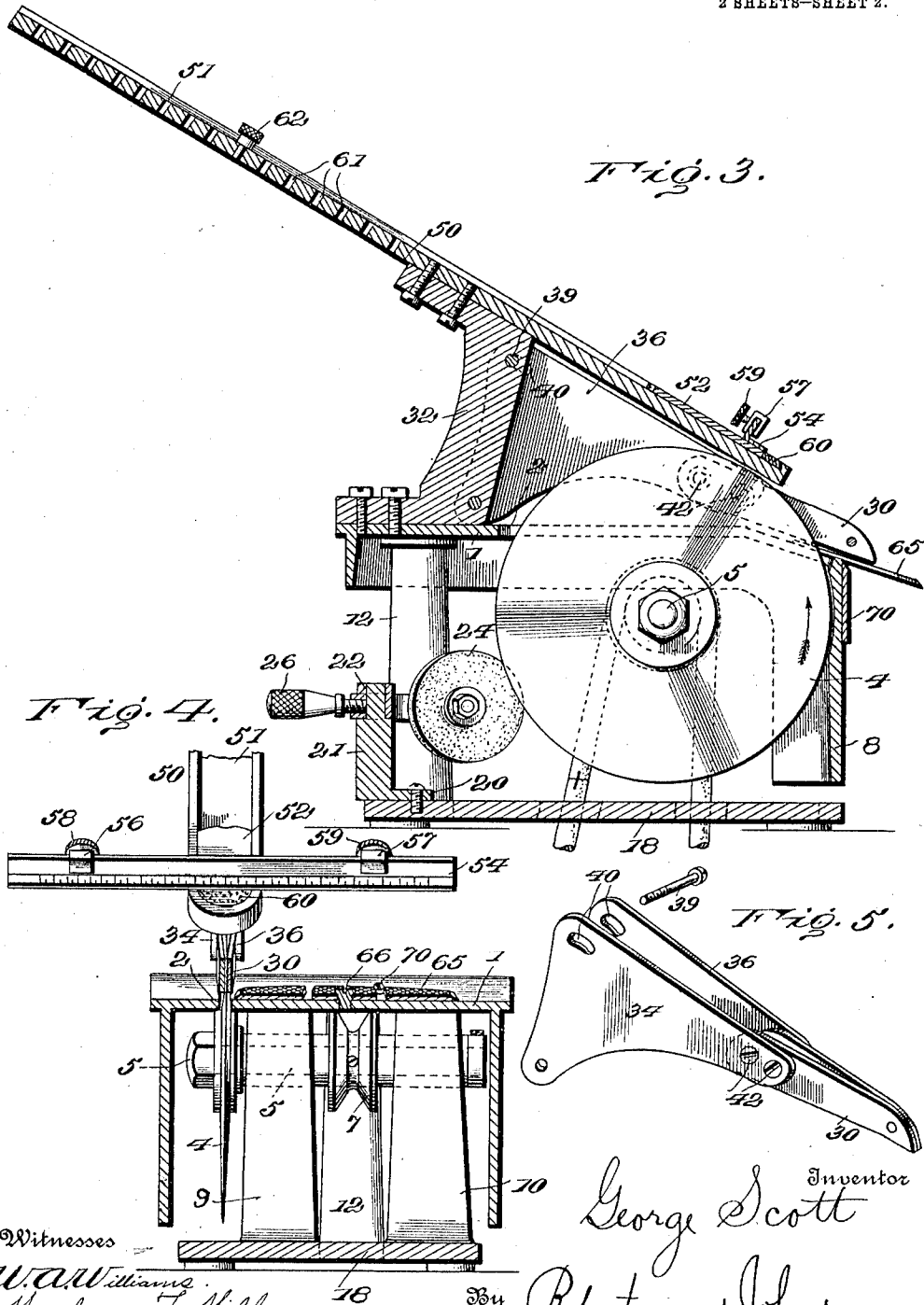
Inventor
George Scott
by
Robertson &
Johnson
Attorneys

G. SCOTT.
CLOTH CUTTING MACHINE.
APPLICATION FILED APR. 14, 1911.

1,061,782.

Patented May 13, 1913.

2 SHEETS—SHEET 2.



Witnesses
W. A. Williams
Henderson F. Hill

By

George Scott
Robertson & Johnson
Inventor
Attorneys

UNITED STATES PATENT OFFICE.

GEORGE SCOTT, OF AMSTERDAM, NEW YORK.

CLOTH-CUTTING MACHINE.

1,061,782.

Specification of Letters Patent.

Patented May 13, 1913.

Application filed April 14, 1911. Serial No. 621,133.

To all whom it may concern:

Be it known that I, GEORGE SCOTT, a citizen of the United States, and a resident of Amsterdam, in the county of Montgomery and State of New York, have invented certain new and useful Improvements in Cloth-Cutting Machines, of which the following is a specification.

This invention relates to certain new and useful improvements in cloth cutting machines of the character shown in my Patent No. 888,755, granted May 26, 1908, and is adapted particularly for the purpose of cutting cloth such as knitted fabric for the manufacture of underwear, but it will be manifest that the invention is adapted to other uses.

My invention consists of the machine hereinafter particularly described and then definitely set forth by the claims at the end hereof.

In the accompanying drawings which illustrate what I now consider to be the preferable embodiment of my invention: Figure 1 is a perspective view of my improved cutting machine. Fig. 2 is a top plan view of the same. Fig. 3 is a vertical longitudinal section. Fig. 4 is a vertical cross section on a line through the pivot of the cutting guide. Fig. 5 is a perspective detail.

Referring now to the details of the drawings by numerals: 1 designates a cutting table slotted at 2 through which slotted table projects a rotary disk cutter 4 fixed to a drive shaft 5, having thereon a suitable pulley 7 by which the disk cutter may be rapidly rotated. The slotted cutting table 1 has a downwardly projecting hood 8 extending on the front and left hand side of the table so that the operator is completely protected from coming in contact with the rapidly revolving cutter underneath the aforesaid cutting table 1. Said table is supported by a pair of standards 9 and 10 and a pillar 12, the former being shown in Fig. 4 and the latter in Fig. 3 and the table is secured to these members 9, 10 and 12 by means of the screws 16 shown in Fig. 2. The standards 8 and 10, in addition to forming a support for the slotted cutting table 1 also provide a bearing for the cutter shaft 5 as seen in Fig. 4, and both the standards 9 and 10 and the pillar 12 are supported by a base or bed 18. At the rear end of the base 18 I secure a bracket 20 having a stand-

ard 21 on which is trunnioned a cutter frame 22 having a pair of sharpening disks 24, which are on opposite sides of the disk cutter, the cutter frame 22 having a handle 26 by means of which the frame may be moved to bring either sharpening disk 24 in contact with the cutting disk 4 for the purpose of sharpening the same.

As in my aforesaid Patent No. 888,755, the rotary disk cutter 4 is rotatable in the direction shown by the arrow in Fig. 3, that is to say, the disk cutter moves so that the cloth or other material as it is being cut, tends to move away from the table instead of being dragged or pulled in the slot and thus clog the operation of the machine. And, as in my aforesaid patent, I employ a finger or blade 30. This finger or blade 30 is supported by a device which will now be described. To the rear end of the slotted cutting table 1 I firmly secure a standard 32, to the opposite sides of which are connected two plates 34 and 36, the plate 34 being shown in Fig. 1 and the plate 36 in Fig. 3. These two plates are secured to the standards 32 by means of two bolts 38 and 39, the latter passing through slots 40 in the plates 34 and 36, whereby said plates may be slightly adjusted as will be explained. These plates 34 and 36 straddle the disk cutter 15 and thus form a hood for the same and their front ends extend sufficiently forward to receive between them the aforesaid finger or blade 30, the latter being secured between the plates 34 and 36 by means of two screws 42. In actual practice it is found that the forward end of the finger or fixed cutting blade 30 should be about one-eighth of an inch above the slanting upper surface 1^a of the cutting table but this may be changed to the limits of the slot 40, in the plates 34 and 36, by loosening the bolt 39 in a manner which will be obvious from an inspection of the drawings.

The aforesaid standard 32, in addition to supporting the plates 34 and 36 and their finger or fixed blade 30 serves the additional purpose of supporting a slanting gage guide 50. This guide slants downward over the plates 34 and 36 and part of the fixed cutter or guide and thus entirely covers the same so that the upper edge of the disk cutter is entirely protected. The said guide 50 is provided with a groove 51 of dove tail shape and is adapted to receive a similarly shaped tongue 52 to which is secured the gage 54,

preferably formed of a piece of angle iron with two sets of figures running in opposite direction from a central zero point on one flange of the angle iron, and with two adjustable markers 56 and 57 secured to the other flange of the angle iron by means of the screws 58 and 59, all as clearly shown in Fig. 1. The lower end of the dove tail groove is provided with a leather buffer 60 and the upper end of the slanting gage guide 50 is provided with a series of perforations 61 into any one of which may be inserted a headed pin 62. This construction makes it possible for the operator to change the position of the headed pin 62 so as to limit the movement of the gage 54 in the manner to be hereinafter described.

Another feature of my invention is a rotary guide shown best in Figs. 1 and 2. This guide consists of a plate 65 pivoted at 66 to the slanting part 1^a of the slotted cutting table 1; the plate 65 being slotted as shown at 68 and the table is provided with a pin 70 co-acting with said slots to limit the movement of the plate 65. Secured to the front or hood 8, underneath the rotary guide 65, is secured a vertically disposed gage 70, which projects to the left of the slotted table 1 so that the slot 2 of the table 1 is at the center of the gage 70.

The operation of my machine is as follows: Assuming that an under-shirt is to be cut and remembering that the disk cutter 4 rotates at a high speed in the direction of the arrow shown in Fig. 3: The operator first doubles the garment and places the same on top of the rotary guide 65 in such a position that a cut will be made in the shirt at the desired place. The operator then places the fingers of the right hand on the material to be cut, directly over the rotary guide 65, and turns the rotary guide 65, while with his left hand he feeds the material to the left of the rotary guide 65 underneath the fixed blade 30, so that the material is cut between the disk cutter 4 and said blade. As the operator continues to turn the material with the rotary guide 65, a semi-circular piece is cut out of the material of approximately the same shape as the rotary guide 65. The operator now folds the cloth in which the opening has been cut and turns it front downward in order to make a cut down the front where the shirt is to be buttoned. Then the blank is placed with its upper folded edge against the gage 54 but with the under thickness of the cloth under the fixed blade 30 and the upper thickness of the cloth over said blade 30. Thereupon the operator moves the blank upward, shoving the horizontal gage 54 upward in its groove 51, until the upper end of the tongue 52 strikes against the headed pin 62, this pin having been adjusted so that the distance the gage 54 travels in the groove 51 is the

length of the cut to be made down the front of the shirt. When this cut is made the shirt is withdrawn from the machine, and the gage 54 slides, by gravity, back to the position shown in Fig. 1, ready for the operator to cut another shirt. It will be understood that if the shirt is to be cut down the center of the front, the markers 56 and 57 will be secured at equal distances on opposite sides of the zero point whereas, if the shirt is to be opened on the side, the operator adjusts the markers 56 and 57 so that one will be a slight distance from one side of the zero point, while the other marker will be a correspondingly greater distance to the other side of the zero point.

From the foregoing and accompanying drawings, it will be seen that I have provided a very simple cloth cutting machine which makes it possible for an operator to very rapidly cut out the neck of a shirt and by a very simple operation cut the front of the shirt in order to provide the opening found in all shirts of this character.

It will be obvious that changes and modifications may be made in my machine and also that its use is not limited to making under-shirts.

What I claim as my invention is:

1. In a cloth cutting machine, a slotted table, a disk cutter located beneath the table and having its cutting edge projecting upward through the slot in said table, and a rotary guide secured to said table at one side of the cutting disk, whereby the material may be guided by said rotary guide to cut a circular piece.

2. In a cutting machine, a slotted table, a fixed cutter or blade supported by said table, a disk cutter projecting through the slot in said table and cutting against said fixed cutter or blade and away from the table, and a rotary guide secured to one side of the cutting disk and its blade, whereby the material may be guided by said rotary guide to cut a circular piece.

3. In a cutting machine, a slotted cutting table, a disk cutter projecting through the slot in said table, plates on opposite sides of said disk forming a protecting means, a fixed cutter or blade carried by said plates, said disk cutter rotating toward said fixed cutter or blade, and a rotary guide secured to one side of the cutting disk or fixed blade, whereby the material may be guided by said rotary guide to cut a circular piece.

4. In a cutting machine, a slotted cutting table, a disk cutter projecting through the slot in said table, plates on opposite sides of said disk forming a protecting means, and a fixed cutter or blade carried by said plates, said disk cutter rotating toward said fixed cutter or blade, and said plates being adjustably secured in position whereby said fixed cutter or blade may be adjusted.

5. In a cutting machine, a slotted cutting table, a disk cutter projecting through the slot in said table, plates adjustably secured on opposite sides of said disk forming a protecting means, a fixed cutter or blade carried by said plates, said disk cutter rotating toward said fixed cutter or blade, and a rotary guide secured to one side of the cutting disk or fixed blade, whereby the material may be guided by said rotary guide to cut a circular piece.

6. In a cloth cutting machine, a bed or table, a rotary cutter, a rotary guide located at one side of said cutter, whereby the material may be guided by said rotary guide to cut a circular piece, and a gage located in proximity to said cutter and guide and extending on opposite sides of said cutter.

7. In a cutting machine, a slotted table, a fixed cutter or blade supported by said table, a disk cutter projecting through the slot in said table and rotating toward said fixed cutter or blade, a rotary guide secured to one side of the cutting disk and its blade, whereby the material may be guided by said rotary guide to cut a circular piece, and a gage located in proximity to said cutter and guide and extending on opposite sides of said cutter.

8. In a cloth cutting machine, a bed or table, a rotary cutter, a rotary guide located at one side of said cutter, whereby the material may be guided by said rotary guide to cut a circular piece, and a sliding gage located adjacent to said cutter and guide.

9. In a cloth cutting machine, a bed or table, a rotary cutter, a rotary guide located at one side of said cutter, whereby the material may be guided by said rotary guide to cut a circular piece, a slanting gage support, and a gage sliding therein, the slant of the support causing the gage to descend by gravity to a point near the cutter and guide.

10. In a cloth cutting machine, a bed or table, a rotary cutter, a rotary guide located at one side of said cutter, whereby the material may be guided by said rotary guide to cut a circular piece, and a gage located in proximity to said cutter and guide, said gage having markers adjustably secured thereto.

11. In a cutting machine, a slotted table, a fixed cutter or blade supported by said table, a disk cutter projecting through the slot in said table and rotating toward said fixed cutter or blade, a rotary guide secured to one side of the cutting disk and its blade, whereby the material may be guided by said rotary guide to cut a circular piece, and a gage located in proximity to said cutter and guide, said gage having markers adjustably secured thereto.

12. In a cloth cutting machine, a bed or table, a rotary cutter, a rotary guide located at one side of said cutter, whereby the material may be guided by said rotary guide

to cut a circular piece, a slanting gage support, and a gage sliding therein, the slant of the support causing the gage to descend by gravity to a point near the cutter and guide, said gage having markers adjustably secured thereto.

13. In a cloth cutting machine, a bed or table, a rotary cutter, a rotary guide located at one side of said cutter, whereby the material may be guided by said rotary guide to cut a circular piece, a slanting gage support, a gage sliding therein, means for limiting the movement of said sliding gage in said support and the slant of the support causing the gage to descend by gravity to a point near the cutter and guide.

14. In a cloth cutting machine, a bed or table, a rotary cutter, a rotary guide located at one side of said cutter, whereby the material may be guided by said rotary guide to cut a circular piece, a slanting gage support having perforations therein, a gage sliding therein, and a pin to fit said perforations whereby the movement of said gage may be changed, the slant of the support causing the gage to descend by gravity to a point near the cutter and guide.

15. In a cloth cutting machine, a bed or table, a rotary cutter, a slanting gage support, and a gage sliding therein, the slant of the support causing the gage to descend by gravity to a point near the cutter.

16. In a cloth cutting machine, a bed or table, a rotary cutter, a slanting gage support, and a gage sliding therein, the slant of the support causing the gage to descend by gravity to a point near the cutter, said gage having markers adjustably secured thereto.

17. In a cloth cutting machine, a bed or table, a rotary cutter, a slanting gage support adjacent said cutter, a gage sliding therein, and means for limiting the movement of said gage in said support, the slant of the support causing the gage to descend by gravity to a point near the cutter and guide.

18. In a cloth cutting machine, a bed or table, a rotary cutter, a slanting gage support adjacent said cutter, a gage sliding therein, means for limiting the movement of said gage in said support, the slant of the support causing the gage to descend by gravity to a point near the cutter and guide, said gage having markers adjustably secured thereto.

19. In a cloth cutting machine, a bed or table, a rotary cutter, a slanting gage support adjacent said cutter, a horizontal gage sliding therein having a scale thereon running on opposite sides from a central zero point, means for limiting the movement of said gage in said support, the slant of the support causing the gage to descend by gravity to a point near the cutter and guide,

said gage having markers adjustably secured thereto.

20. In a cloth cutting machine, a bed or table, a rotary cutter, a slanting gage support adjacent said cutter, a horizontal gage sliding therein having a scale thereon running on opposite sides from a central zero point, means for limiting the movement of said gage in said support, the slant of the support causing the gage to descend by gravity to a point near the cutter and guide, said gage formed of angle material with a scale on one part of the angle and adjustable markers secured to the other angle.

21. In a cloth cutting machine, a bed or table, a rotary cutter, a standard secured to said bed or table, and plates adjustably supported by said standard on opposite sides of

said rotary cutter, and a cutting blade supported by said plates.

22. In a cloth cutting machine, a bed or table, a rotary cutter, a standard secured to said bed or table, and plates supported by said standard on opposite sides of said rotary cutter, a cutting blade supported by said plates, a gage support carried by said standard and projecting over the aforesaid plates and the cutter, and a gage supported by said gage support.

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

GEORGE SCOTT.

Witnesses:

JAMES W. FERGUSON,
JOHN BARTHOLOMEW.

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