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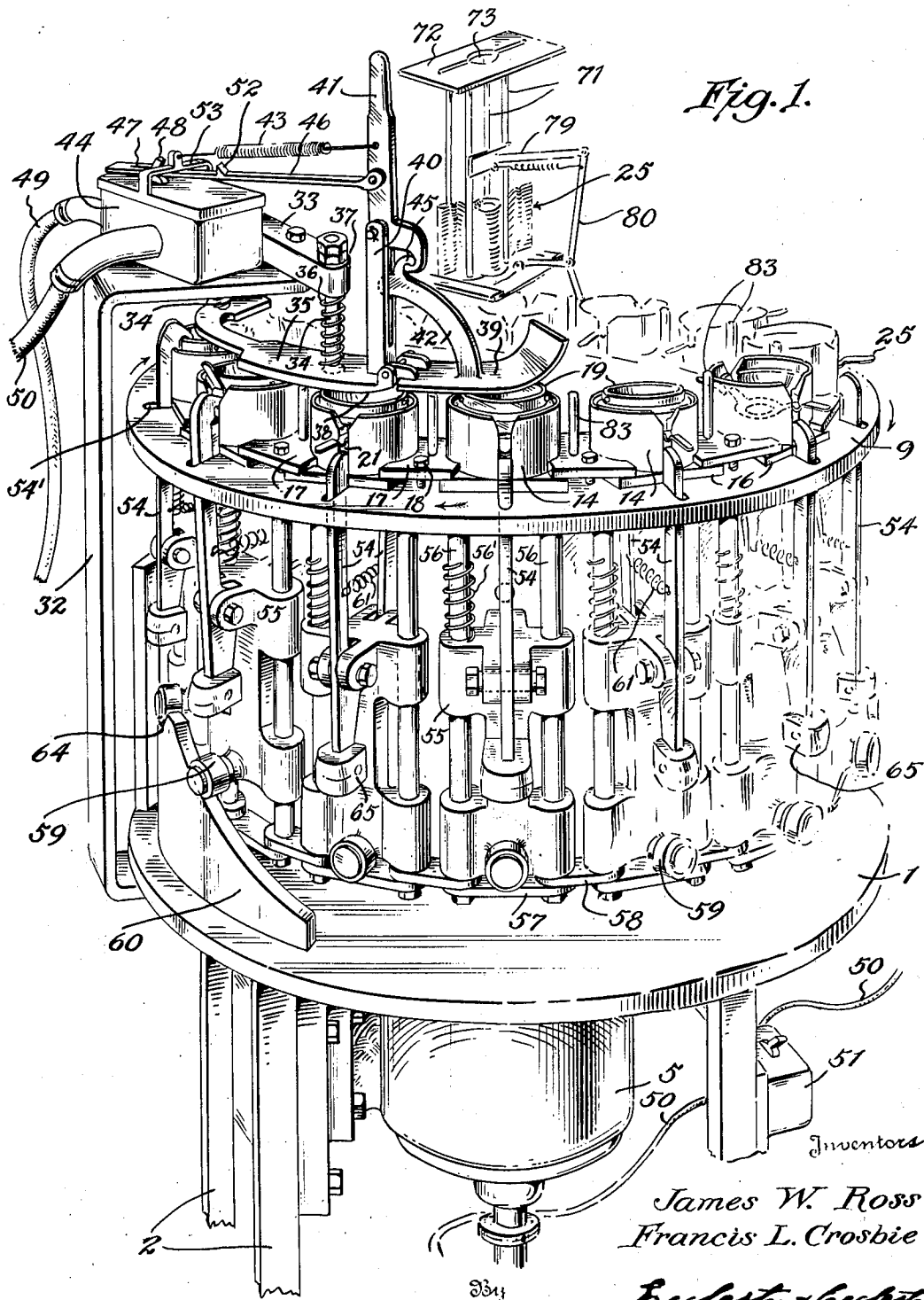
J. W. ROSS ET AL

2,192,106

PERCOLATOR STRAPPER MACHINE

Filed Dec. 8, 1937

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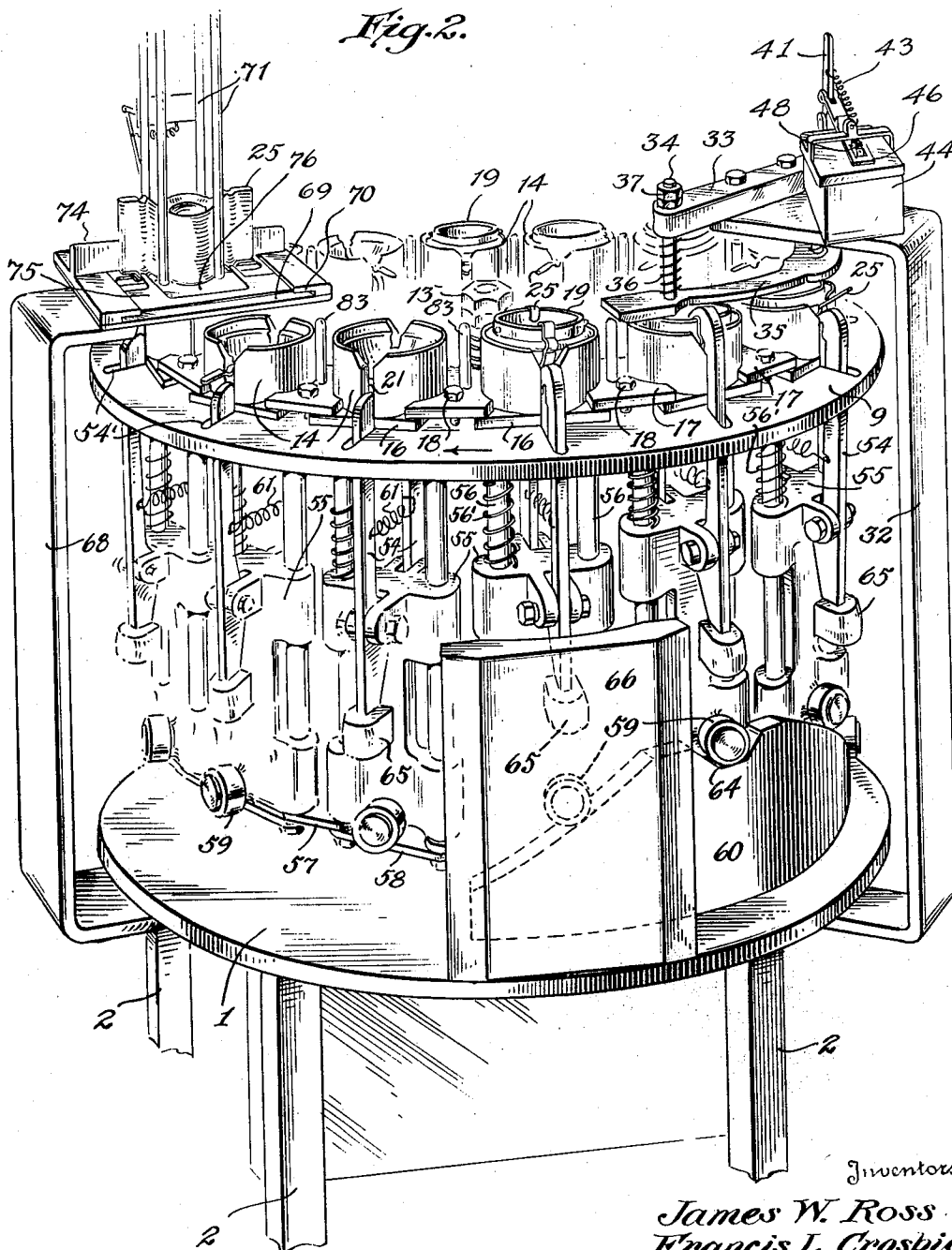
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PERCOLATOR STRAPPER MACHINE

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5 Sheets-Sheet 2



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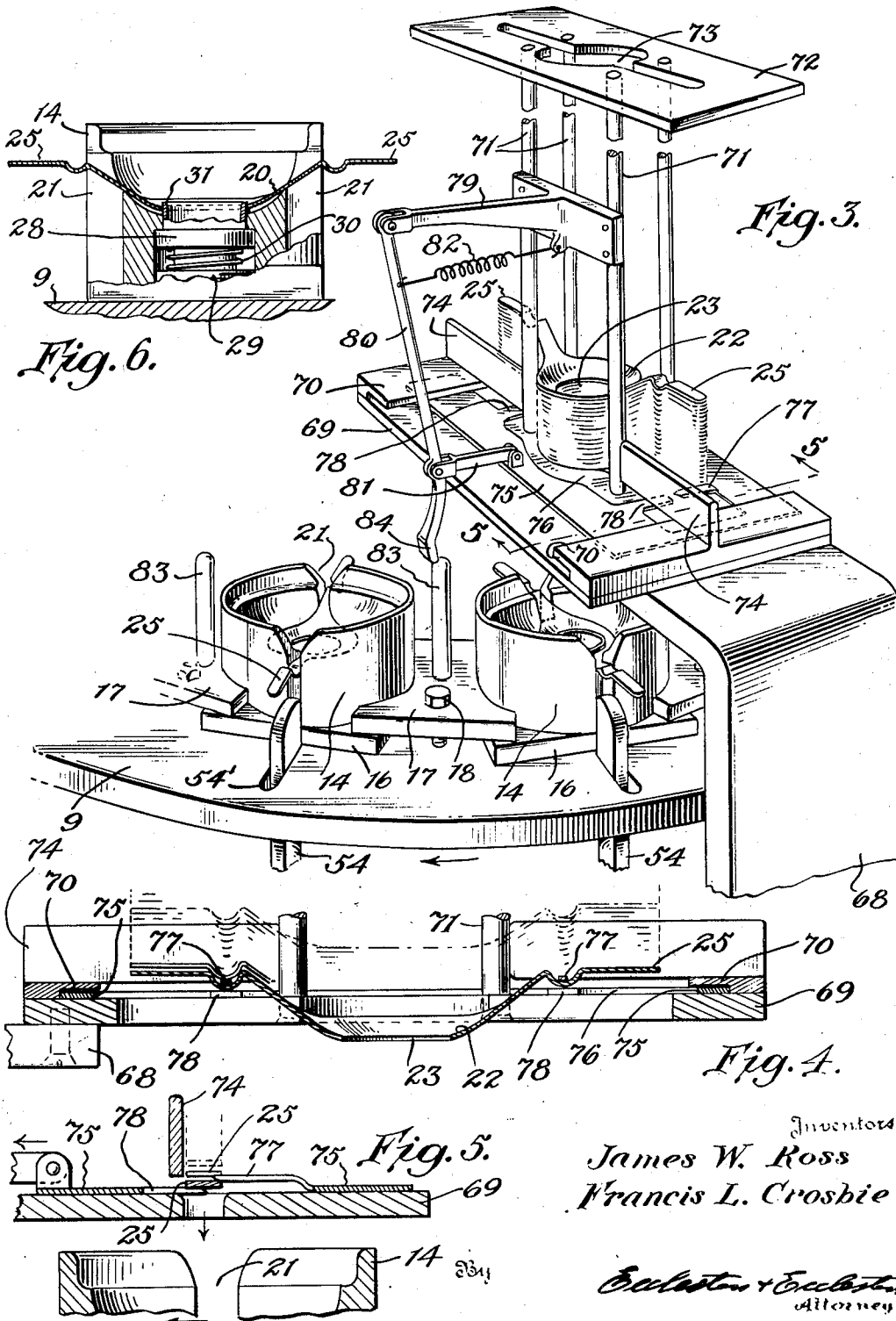
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PERCOLATOR STRAPPER MACHINE

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PERCOLATOR STRAPPER MACHINE

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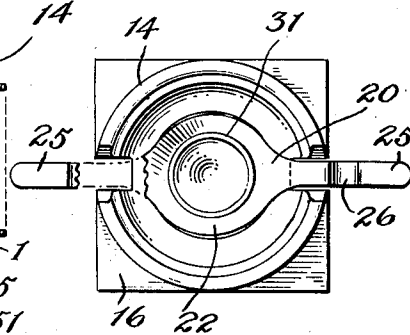
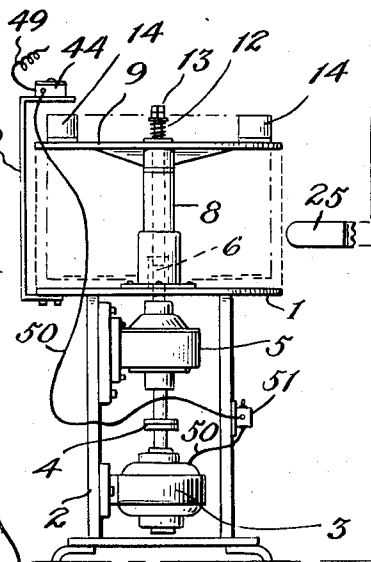
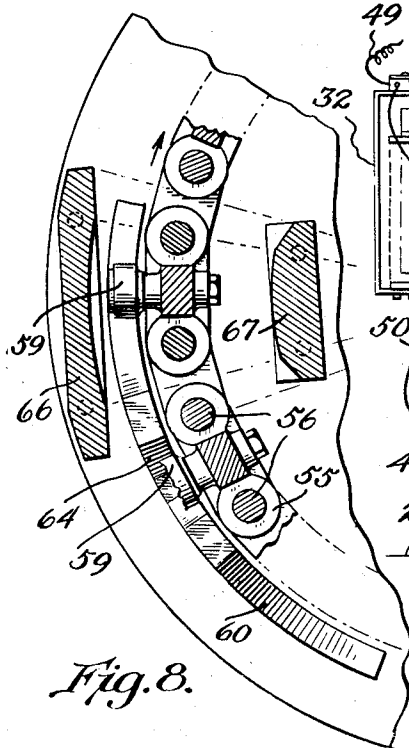
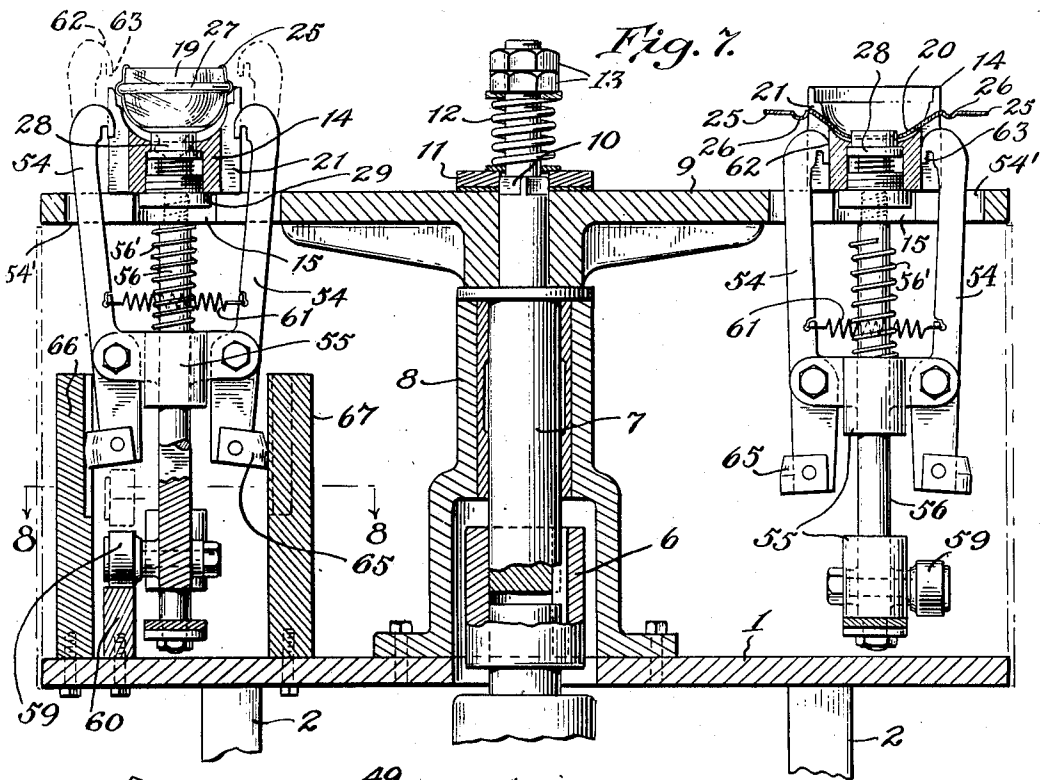


Fig. 9.

Fig. 10.

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PERCOLATOR STRAPPER MACHINE

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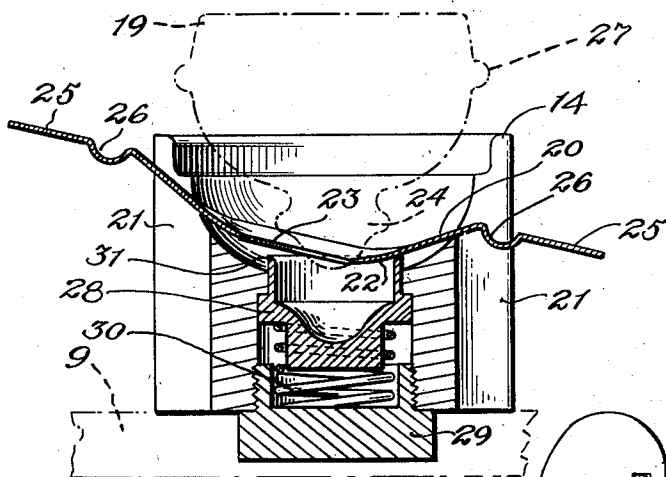


Fig. 11.

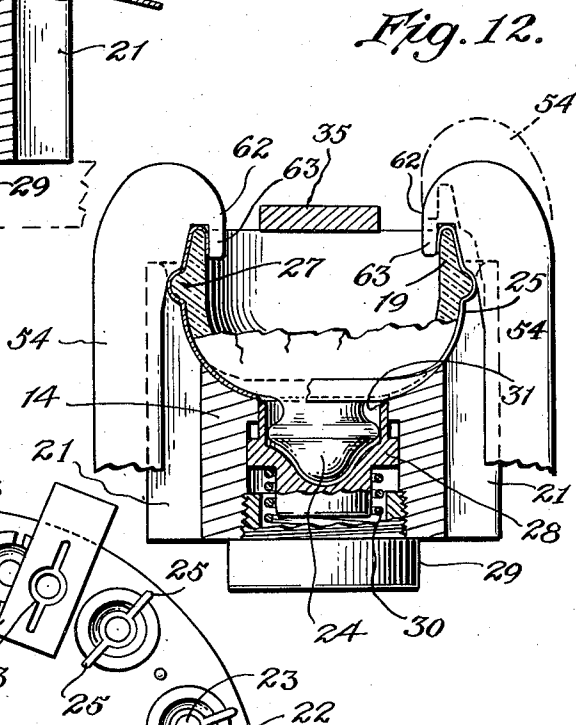


Fig. 12.

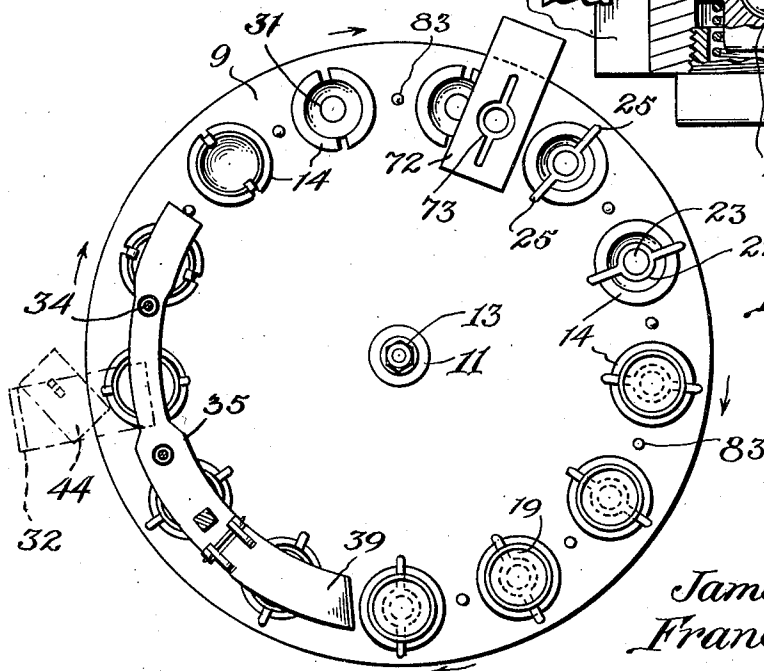


Fig. 13.

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UNITED STATES PATENT OFFICE

2,192,106

PERCOLATOR STRAPPER MACHINE

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Application December 8, 1937, Serial No. 178,832

18 Claims. (Cl. 153—1)

The invention relates to a machine for automatically assembling and uniting the parts forming percolator tops for coffee pots. A percolator top, of the type to which the present invention relates, consists of two parts—the glass top and an aluminum strap which fits over the glass top.

One of the objects of the present invention is to provide a machine which will automatically shape the strap to the configuration of the glass top, and unit the two parts.

Another object of the invention is to provide means for automatically delivering the metal straps to the strapper blocks.

A further object of the invention is to provide means for centering the straps with respect to the glass top.

Another object of the invention is to provide means for automatically stopping the machine in case one of the glass tops is improperly positioned in a strapper block, or if the operator's hand should be in danger of passing under the clamp-down plate, etc.

Various other objects and advantages of the invention will be apparent from the following description, when taken in connection with the accompanying drawings, in which,

Figure 1 is a front perspective view of the machine.

Figure 2 is a rear perspective view thereof.

Figure 3 is a perspective view of the device for feeding the metal straps to the strapper blocks.

Figure 4 is a longitudinal sectional view of the feeder.

Figure 5 is a transverse sectional view of the feeder, taken on line 5—5 of Figure 3.

Figure 6 is a sectional view of one of the strapper blocks with a metal strap positioned therein.

Figure 7 is a vertical sectional view of the machine, with various parts omitted for the sake of clearness.

Figure 8 is a detail horizontal sectional view, taken on line 8—8 of Figure 7.

Figure 9 is an elevational view of the machine, mainly illustrating the driving mechanism.

Figure 10 is a detail plan view of one of the strapper blocks.

Figure 11 is a detail view of one of the strapper blocks, illustrating how the straps are centered.

Figure 12 is a detail view of a strapper block and the associated pull arms; and

Figure 13 is a plan view of the machine, largely diagrammatic, and illustrating various steps in the operation.

Referring to the drawings in more detail, numeral 1 indicates a stationary base plate supported by pedestals 2. A motor 3, through a flexible shaft 4, a reduction gearing 5 and a coupling 6, continuously rotates the main shaft 7 of the machine. This main shaft is mounted in a bearing 8 carried by the base plate 1.

The table 9, which carries the strapper blocks, is continuously rotated by the shaft 7. And of course the speed can be varied as desired by means of a rheostat (not shown). In the specific embodiment illustrated there is a friction connection between the table and the shaft. For this purpose, a portion 10 of the shaft is squared just above the surface of the table, as shown in Figure 7. A disc 11 is mounted on the squared portion, and fibre washers are preferably provided above and below the disc. A coil spring 12 is mounted on the upper end of the shaft, between nuts 13 and the disc 11. The pressure on the spring can be varied by adjusting the nuts.

Mounted on the table 9 is any desired number of strapper blocks 14; there being thirteen illustrated. An opening 15 is provided in the table for each block, and the blocks are fitted over these openings. Of course the blocks can be secured to the table, and adjusted thereon by any desired means. In the present embodiment, each block is provided with a flanged portion 16 at its base. Clamp plates 17 are arranged between the blocks, and rest on the flanges of the blocks. Each clamp plate has two openings. Through one of these openings projects a finger which operates the strap feeding device, which will be described hereinafter; and a bolt 18 passes through the other opening and is threaded into the table. The strapper blocks can be adjusted circumferentially, or otherwise, and then be clamped in fixed position by screwing down the bolts 18.

All of the strapper blocks and associated parts are identical in construction, and one of these units will now be described. The upper portion of the block is cupped out to receive an inverted percolator top 19 and a metal strap 20. At diametrically opposite points the block is provided with grooves or channels 21 which extend from the top to the bottom of the block. The upper portions of these channels open into the interior of the block. Each percolator strap 20 consists of a central portion 22 provided with an opening 23 through which projects the knob 24 on the glass percolator top 19, and two straps 25 which extend outwardly, in opposite directions, from the central portion 22. These straps extend through the open upper portions of the channels 21, as shown in Figure 6.

All of the strapper blocks and associated parts are identical in construction, and one of these units will now be described.

The upper portion of the block is cupped out to receive an inverted percolator top 19 and a metal strap 20. At diametrically opposite points the block is provided with grooves or channels 21 which extend from the top to the bottom of the block. The upper portions of these channels open into the interior of the block. Each percolator strap 20 consists of a central portion 22 provided with an opening 23 through which projects the knob 24 on the glass percolator top 19, and two straps 25 which extend outwardly, in opposite directions, from the central portion 22. These straps extend through the open upper portions of the channels 21, as shown in Figure 6.

and elsewhere. The straps, when delivered to the strapper blocks, are provided with grooves 26, which are adapted to fit about the bead 27 on the percolator top.

5 The central portion of the block is bored out, and slidably mounted therein is a centering member 28, best illustrated in Figures 6, 11 and 12. The bore is closed by a plug 29, and between the plug and the centering member is a
10 coil spring 30, which normally holds the centering member in elevated position, but permits it to be lowered when under pressure. The centering member is provided with an upwardly extending centering ring 31, and when the member
15 is in elevated position the centering ring projects into the bowl or cupped out portion of the strapper block. This position of the centering member is illustrated in Figures 6 and 11, and the member in lowered position is shown in Figure
20 12. The head of the plug 29 is received in the opening 15 of the table 9.

The straps 20 may be delivered to the blocks by hand, but they are preferably delivered by an automatic feeder, to be described hereinafter.
25 When a strap is delivered to a block, it may correctly center itself, as shown in Figure 6, with the centering ring 31 extending upwardly through the opening 23 in the strap. But some straps may not correctly position themselves when
30 dropped into the blocks, and in that event the straps are properly centered when the percolator top is dropped into the block, as illustrated in Figure 11. The percolator tops may be dropped
35 into the blocks by hand or by machine. Assuming a strap is off center in a block, as shown in Figure 11, then when a percolator top is dropped into the block the knob 24 of the top will engage the edge of the opening 23 in the strap, and as
40 the top continues to move downward the strap will be moved over until the opening 23 aligns with the centering ring 31, and the strap then drops down into the correct position shown in Figure 6. Of course it will be understood that the conventional percolator top is provided with
45 the tapered knob 24, and it is this taper which causes the strap to move over to centered position.

When the percolator top is positioned in the block the knob 24 fits into the centering member, but the top is in slightly elevated position,
50 because the centering member is in elevated position. At the proper moment the percolator top and the centering member will be moved downward, to clamp the top and strap together, before the operation of shaping the strap is started. The
55 means for moving the top and centering member downward, will now be described.

Numeral 32 indicates a bracket which is mounted on and extends upwardly from the base plate 1. A cross-arm 33 on the bracket carries two
60 vertical pins 34. The lower ends of these pins are countersunk in a presser plate 35, and a coil spring 36 is mounted on each pin between the presser plate and the cross-arm. The lower limit of movement of the presser plate can be adjusted
65 by the nuts 37. By reference to Figure 1, it will be noted that the forward or right hand end of the presser plate is formed with a downwardly inclined bevel, as indicated by numeral 38.

The straps and tops having been delivered to
70 the strapper blocks, the continued rotation of the table, in the direction of the arrow in Figure 1, carries the blocks under the presser plate, and this plate will force the percolator tops and centering members downward to the position shown
75 in Figure 12. When the parts are in this posi-

tion the percolator top and strap are clamped tightly against the block, and thus the parts are firmly held in position while the strap is being shaped.

The parts are held in this clamped condition, 5 by the presser plate, while all of the shaping operations are being performed, and when the operations have been completed the continued rotation of the table carries the block free of the presser plate, and the centering member is then
10 moved upwardly by the coil spring 30. This upward movement of the centering member lifts the completed percolator top to the position shown at the left hand side of Figure 7, so that it can be readily removed by hand or by machine. 15

Before describing the apparatus for shaping the straps to the percolator tops, we shall describe a safety device which may be employed in conjunction with the presser plate.

If a percolator top should happen to be canted 20 in one of the strapper blocks, the machine might be damaged when the block passed under the presser plate 35. Or, in placing the percolator tops in the blocks by hand, the operator might be slow in removing his hand. To avoid any
25 possible injury to the operator or to the machine, a shoe 39 is pivotally attached to the forward end of the presser plate 35. Numeral 40 refers to a bracket extending upwardly from the presser plate, and pivotally mounted on the bracket is a lever 41. The lower end of the lever is normally
30 latched to an upwardly and rearwardly extending arm 42 of the shoe 39, as clearly shown in Figure 1.

A spring 43 has one end attached to the lever, 35 and the other end attached to the casing 44 of a safety switch. This spring tends to move the lever to the left (Fig. 1) but such movement is normally prevented by the interlocking relation between the lever and the arm 42, as indicated
40 by numeral 45. If a canted percolator top, an operator's hand, or other obstruction, passes under the shoe 39, the latter will be tilted upwardly, thereby releasing the latch 45, and permitting the spring 43 to swing the lever to the
45 left (Fig. 1).

A connecting rod 46 has one end pivotally attached to the lever, and its opposite end is provided with a slot 47 which receives the upward-
50 extending switch finger 48. The parts are shown in Figure 1 in their operative position; the switch finger being in its "on" position. An electric line 49 leads from an appropriate source of power to the safety switch 44, and a line 50 leads
55 from the safety switch through the main switch 51 to the motor 3. Thus when the shoe 39 is tilted upwardly, the lever is moved to the left by the spring 43, and the connecting rod 46
60 throws the switch finger 48 to the left or "off" position, instantly stopping the machine and preventing any injury to the machine or operator. Movement of the lever and connecting rod to the left is limited by a lug 52 on the connecting rod, which is adapted to engage a bracket 53 on the
65 safety switch casing. When the obstruction has been removed, the lever 41 is moved to the right, thereby throwing the switch finger to the right to start the machine, and returning the various parts to the positions shown in Figure 1.

While the safety device described above is very 70 desirable, yet it is to be understood that the present invention is not limited to use with this safety device or any safety device.

The straps and percolator tops having been placed in the strapper blocks, pass under the 75

presser plate and the percolator tops are forced downward to firmly clamp the percolator tops and the central portions of the straps against the blocks, as hereinbefore described. The presser plate holds the parts in this clamped position throughout the shaping of the straps, which will now be described.

As clearly shown in the drawings, the strap ends 25, having the grooves 26, extend outwardly through the upper ends of the channels 21 provided in opposite sides of the blocks. The shaping of a strap to a percolator top is effected by two pull arms 54. Two of these arms are associated with each block; the upper ends of the arms riding in the channels 21, below the strap ends.

The pull arms 54, which extend through slots 54' in the table, are pivotally mounted, intermediate their ends, upon a carriage 55, and this carriage is slidably mounted on a pair of guide rods 56, fixed to and extending downwardly from the table 9. To prevent undue vibration, etc., the guide rods of each pair have their lower ends connected by a link 57, and adjacent pairs of guide rods are connected by a link 58.

The carriage 55 is raised and lowered by a roller 59 which is adapted to ride on a cam 60; the roller being held down against the cam by a coil spring 56' mounted on a guide rod 56. The pull arms 54, above their pivots, are connected by a spring 61, which tends to pull their upper ends toward each other, thereby maintaining the upper ends of the arms against the base of the channels 21, as clearly shown at the right hand side of Figure 7.

The continuous rotation of the table 9 brings the rollers 59 successively into engagement with the cam 60. The roller rides up the cam thereby lifting the carriage 55 and the arms 54 carried thereby. The specific shape of the upper ends of the pull arms, is best illustrated in Figures 7 and 12. They are of a general hook shape, and conform substantially to the contour of the percolator top, from the bead 27 to the edge of the percolator top. The inner face 62 of the hook-shaped members constitutes a pressing face which normally rest against the base of the channel 21.

When the pull arms are moved upwardly, by a roller 59 riding up the cam 60, the pressing faces 62 will bend the strap ends upwardly and press them against the percolator top, making them conform to the contour thereof. These faces will ride over the bead 27 and then move inwardly under the pressure of spring 61, thereby causing the grooves 26 in the strap ends to fit neatly about the bead 27 on the percolator cap.

The continued upward movement of the arms 54 brings the lower ends of the hooks 63 into alignment with the edge of the percolator cap, and the hook members are now snapped inwardly by the spring 61, thereby bending the strap ends inwardly about the edge of the percolator top. The hook ends of the puller arms are now in substantially the position indicated by the dotted line in Figure 12. The pull arms are then moved downwardly to bend the strap ends against the inner face of the percolator top, and then are moved upwardly, outwardly and downwardly, to the original position. The apparatus for effecting these further movements of the pull arms will now be described.

The cam 60, at its top, is provided with an abrupt dip or pocket 64. When a carriage roller

59 reaches this point the hooked ends of the pull arms are in the position shown by the dotted line in Figure 12. The roller drops into the pocket 64, thereby lowering the carriage under the pressure of spring 56'. This downward movement of the carriage moves the hook ends downward to the positions shown in full lines in Figure 12; thereby bending the strap ends 25 downwardly and outwardly against the inner face of the percolator top. And as the hook ends conform substantially to the shape of the percolator top, it will be apparent that the strap will be fitted snugly about the percolator top.

The shaping of the strap having been completed, the roller 59 now rides out of the pocket, thereby elevating the pull arm and releasing the hook ends from the percolator top. Slide blocks 65 are mounted on the lower ends of the pull arms, and just after the hook ends have been released, these slide blocks engage cams 66 and 67, best shown in Figures 7 and 8. These cams cause the hook ends to be swung outwardly to the position shown by dotted lines in Figure 7.

The ends are held outwardly by the cams 66 and 67 while the rotation of the table continues, and the roller 59 now rides down and off the cam 60, thereby lowering the pull arms. And when the arms have been lowered the slide blocks ride free of the cams 66 and 67, whereupon the spring 61 draws the hook ends inwardly to their original positions against the base of the channels 21, thereby completing a cycle of operation of the pull arms.

In the meantime the percolator top, with the strap shaped and united thereto, has moved from under the presser plate 35, whereupon the spring 30 beneath the centering member 28 raises the percolator top to the position shown at the left of Figure 7, so that the completed top can be readily removed by hand or machine.

The strapper block is now ready to receive another strap and then another top, and the operation is repeated. While we have described the operation of one unit, there are as many units as desired on the table, thirteen in the present instance, and the operation of all of the units is continuous.

The straps are preferably delivered to the strapper blocks automatically, and an automatic feeder for this purpose will now be described. It is to be understood, however, that the present invention is not limited to use with this feeder or with any feeder.

Referring particularly to Figures 2, 3, 4 and 5, a bracket 68 extends upwardly from the base plate 1, and this bracket supports the mechanism for feeding the straps. A plate 69, provided with guides 70 at its ends, is mounted on the bracket 68, and extending upwardly from this plate are four spaced rods 71, which form a cage or reservoir for a supply of the percolator straps. A plate 72 is mounted on the upper ends of these rods, and the plate is provided with an opening 73, of substantially the shape of the straps. A supply of the straps is dropped through this opening, and ribs 74 extending inwardly from the ends of the plate 69, assist in aligning the straps. The plate 69 is provided with an opening similar to the opening 73, and a shutter 75, having its central portion cut away, as indicated by numeral 76, is adapted to reciprocate in the guides 70. The shutter is provided with two pairs of oppositely disposed fingers 77 and 78, which extend into the path of the strap ends 25.

The fingers 77 are in a plane slightly above the plane of the fingers 78.

Assuming the strap ends 25 of a percolator strap are resting on the fingers 78, as best shown in Figure 5, and the shutter and fingers are moving to the left, then the continued movement of the shutter and fingers 78 will release a strap and permit it to be dropped into a strapper block beneath it. But in the meantime the fingers 77 have passed beneath the next strap to prevent it from dropping. The shutter is now moved to the right (Fig. 5), whereupon the strap supported by the fingers 77 drops onto the fingers 78, and when the shutter is again moved to the left the strap will drop into the strapper block beneath it. Thus a strap is delivered to a block 14 every time the shutter 75 is moved to the left.

Any desired means may be employed for reciprocating the shutter in timed relation with the movement of the continuously rotating table 9 carrying the strapper blocks. In the present embodiment of the invention a bracket 79 is attached to the rods 71, and a lever 80 has its upper end pivotally connected to the bracket. A link 81 has one end attached to the shutter and its other end attached to the lever. A spring 82 normally maintains the lever and the shutter in their position to the right (Fig. 3). A pin 83 extending upwardly from the table 9, is associated with each strapper block, in advance thereof. These pins successively engage the lower end 84 of the lever 80, and move it and the shutter to the left, to thereby deliver a strap to the properly aligned strapper block. When the lower end of the lever is free of a pin, the spring 82 snaps the lever and shutter back to their normal position, with the lower end of the lever in position to be engaged by the next arriving pin 83.

It will be apparent from the foregoing description that we have devised an automatic machine for assembling and centering the parts forming percolator tops, for shaping the straps to the contour of the glass tops, and uniting the parts. It will also be apparent that the machine can efficiently perform the several operations at a high rate of speed, and without possible injury to the machine or operator.

Having fully described the invention, what we claim is:

1. An apparatus of the character described, including a rotatable table, a plurality of shaping units mounted on the table, each unit including a strapper block adapted to receive a percolator top and a strap, a pair of shaping arms, means for moving said arms upwardly along the percolator top to shape the strap to the contour of the top, and means for moving the arms inwardly to bend the strap ends inwardly across the edge of the percolator top.

2. An apparatus of the character described, including a rotatable table, a plurality of shaping units mounted on the table, each unit including a strapper block adapted to receive a percolator top and a strap, a pair of shaping arms, means for moving said arms inwardly to bend the strap ends inwardly across the edge of the percolator top, and means for moving the arms downwardly to press the strap ends against the interior face of the percolator top.

3. An apparatus of the character described, including a rotatable table, a plurality of shaping units mounted on the table, each unit including a strapper block adapted to receive a percolator top and a strap, a pair of shaping arms, means for moving said arms upwardly along the perco-

lator top to shape the strap to the contour of the top, means for moving the arms inwardly to bend the strap ends inwardly across the edge of the percolator top, and means for moving the arms downwardly to press the strap ends against the interior face of the percolator top.

4. An apparatus of the character described, including a rotatable table, a plurality of shaping units mounted on the table, each unit including a strapper block adapted to receive a percolator top and a strap, and a pair of shaping arms, the operative ends of said arms having substantially the contour of the percolator top, and means for moving said arms to engage the strap and shape it to the contour of the percolator top.

5. An apparatus of the character described, including a rotatable table, a plurality of shaping units mounted on the table, each unit including a strapper block adapted to receive a percolator top and a strap, and a pair of shaping arms for engaging the strap and shaping it to the contour of the percolator top, and means for operating each pair of shaping arms in sequence.

6. An apparatus of the character described, including a rotatable table, a plurality of shaping units mounted on the table, each unit including a strapper block adapted to receive a percolator top and a strap, and a pair of shaping arms, means for moving said arms upwardly, inwardly and downwardly to shape and unite the strap to the percolator top, and means for moving the arms upwardly, outwardly and downwardly after the shaping and uniting operation.

7. An apparatus of the character described, including a rotatable table, a plurality of strapper blocks mounted on the table, each block adapted to receive a strap, a centering member mounted for vertical sliding movement in each of the blocks and adapted to receive the knob of a percolator top, a spring normally holding the centering member in upper position, and a presser plate engaging percolator tops in the blocks and moving the tops and centering members downward to clamp together the strap and percolator top, and means for shaping the straps to the contour of the tops while they are in the downward position.

8. An apparatus of the character described, including a rotatable table, a plurality of strapper blocks mounted on the table, each block adapted to receive a percolator top and a strap, means for moving the tops downward in the blocks to clamp the tops and straps together, means for shaping the straps to the tops, and means for moving the tops and straps upward in the blocks after the shaping operation has been completed.

9. An apparatus of the character described, including a rotatable table, a plurality of strapper blocks mounted on the table and adapted to receive percolator tops and straps, a presser plate under which the blocks travel, said plate causing the straps and percolator tops to be clamped together, means for shaping the straps to the contour of the percolator tops, and means in advance of the presser plate for stopping the rotation of the table when said means is engaged by an obstruction.

10. An apparatus of the character described, including a rotatable table, a motor continuously rotating the table, a plurality of strapper blocks mounted on the table and adapted to receive percolator tops and straps, a presser plate under which the blocks travel, said plate causing the straps and percolator tops to be clamped together, means for shaping the straps to the contour of the percolator tops, a shoe pivotally

mounted at the forward end of the presser plate, a safety switch controlling said motor, and an operative connection between the shoe and the switch to move the switch to "off" position when the shoe is moved upwardly.

11. An apparatus of the type described for affixing straps upon percolator tops, the percolator tops being constructed with knobs and the straps being formed with openings designed to receive such knobs, said apparatus comprising a strapper block adapted to receive a strap and a percolator top in the order named with the knob of the percolator top extending through the opening in the strap, and a centering ring located centrally of the strapper block designed to serve as a guide for the knob on the top and to effect centering of an off-center strap as a result of engagement of the knob of the percolator top with the edge of the opening in the strap.

12. An apparatus of the character described for affixing straps upon the percolator tops, the percolator tops being constructed with knobs and the straps being formed with openings to receive the knobs, said apparatus, including a plurality of movable strapper blocks, each block adapted to receive a strap and a percolator top in the order named with the knob of the percolator top extending through the opening in the strap, the end portions of the strap projecting beyond the percolator top and block, and means movable upwardly and inwardly for engaging the projecting end portions of the strap and shaping the strap to the contour of the percolator top.

13. An apparatus of the character described for affixing straps upon the percolator tops, the percolator tops being constructed with knobs and the straps being formed with openings to receive the knobs, said apparatus, including a plurality of movable strapper blocks, means for continuously moving said blocks, each block adapted to receive a strap and a percolator top in the order named with the knob of the percolator top extending through the opening in the strap, the end portions of the strap projecting beyond the percolator top and block, and means movable upwardly and inwardly for engaging the projecting end portions of the strap and shaping the strap to the contour of the percolator top.

14. An apparatus of the character described for affixing straps upon the percolator tops, the percolator tops being constructed with knobs and the straps being formed with openings to receive the knobs, said apparatus, including a rotatable table, a plurality of strapper blocks mounted on the table, each block adapted to receive a strap and a percolator top in the order named with the knob of the percolator top extending through the opening in the strap, the end portions of the strap projecting beyond the percolator top and block, means movable upwardly and inwardly for engaging the projecting end portions of the

strap and shaping the strap to the contour of the percolator top, and means for rotating the table.

15. An apparatus of the character described for affixing straps upon the percolator tops, the percolator tops being constructed with knobs and the straps being formed with openings to receive the knobs, said apparatus, including a continuously rotating table, a plurality of strapper blocks mounted on the table, each block adapted to receive a strap and a percolator top in the order named with the knob of the percolator top extending through the opening in the strap, the end portions of the strap projecting beyond the percolator top and block, means movable upwardly and inwardly for engaging the projecting end portions of the strap and shaping the strap to the contour of the percolator top, and means for continuously rotating the table.

16. An apparatus of the character described, including a rotatable table, a plurality of shaping units mounted on the table, each unit including a strapper block adapted to receive a strap and a percolator top in the order named, the end portions of the strap projecting beyond the percolator top and block, a pair of shaping arms, and means for moving the arms along the outside of the blocks for engaging the projecting end portions of the strap and shaping the strap to the contour of the percolator top.

17. An apparatus of the character described, including a rotatable table, a plurality of strapper blocks mounted on the table, each block adapted to receive a strap and a percolator top in the order named, the end portions of the strap projecting beyond the percolator top and block, a pair of arms associated with each block, means for moving the arms upwardly outside of the block for engaging the projecting end portions of the block and shaping the strap to the contour of the percolator top, and means for automatically feeding a strap to each strapper block with the end portions of the strap in substantially vertical alignment with the said arms.

18. An apparatus of the character described, including a rotatable table, a plurality of strapper blocks mounted on the table, each block adapted to receive a strap and a percolator top in the order named, the end portions of the strap projecting beyond the percolator top and block, a pair of arms associated with each block, means for moving the arms upwardly outside of the block for engaging the projecting end portions of the block and shaping the strap to the contour of the percolator top, means for feeding a strap to each strapper block with the end portions of the strap in substantially vertical alignment with the said arms, and a pin in advance of each block for operating the feeding means as its block passes under the feeder.

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