(No Model.) 3 Sheets—Sheet 1.

A. STOLLSTORFF.

BRANDING MACHINE.

No. 587,562. Patented Aug. 3, 1897.

Fig. 1.

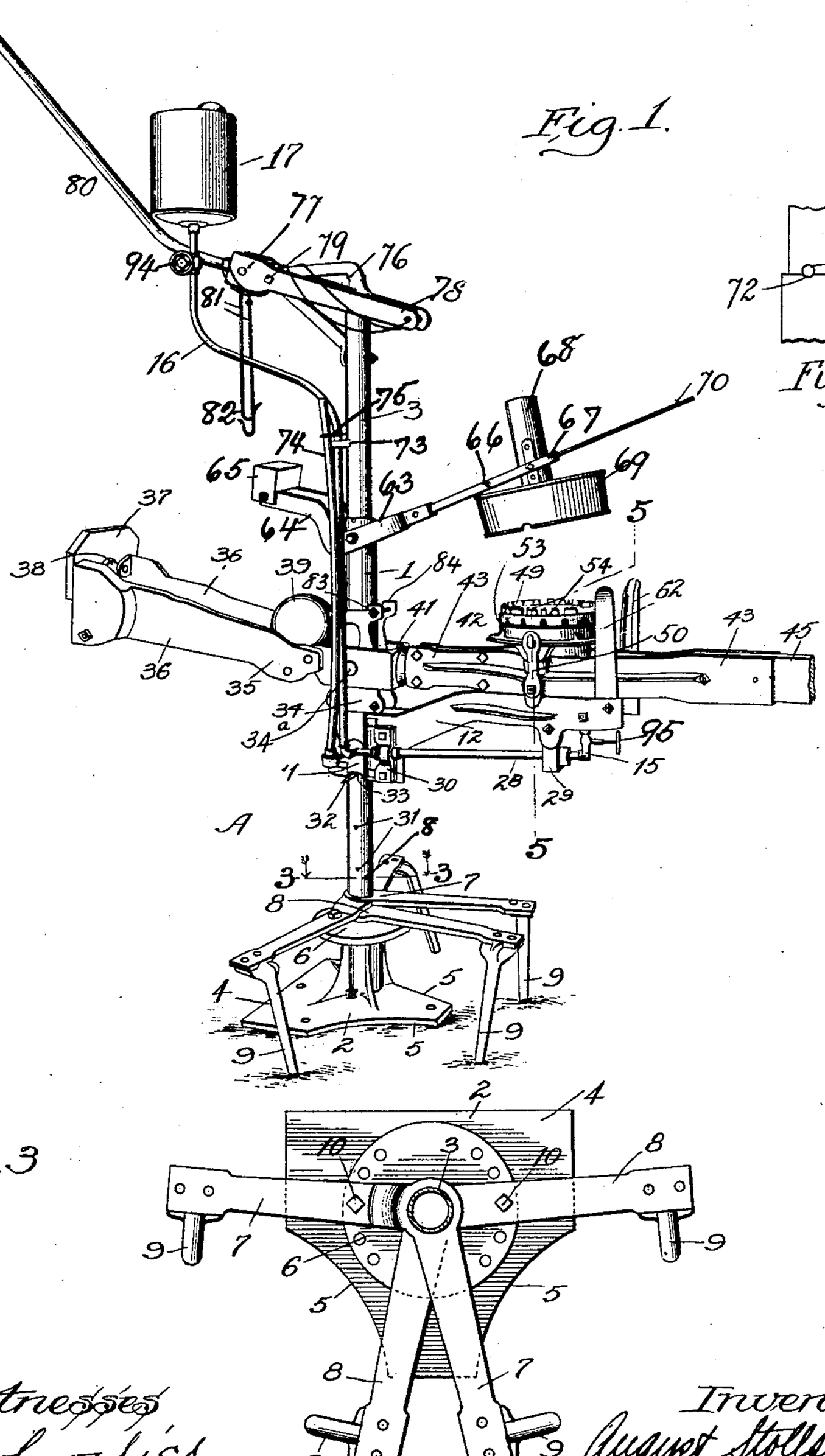

Fig. 14.

Fig. 3

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(No Model.) 3 Sheets—Sheet 2.

A. STOLLSTORFF.

BRANDING MACHINE.

No. 587,562. Patented Aug. 3, 1897.

Fig. 2.

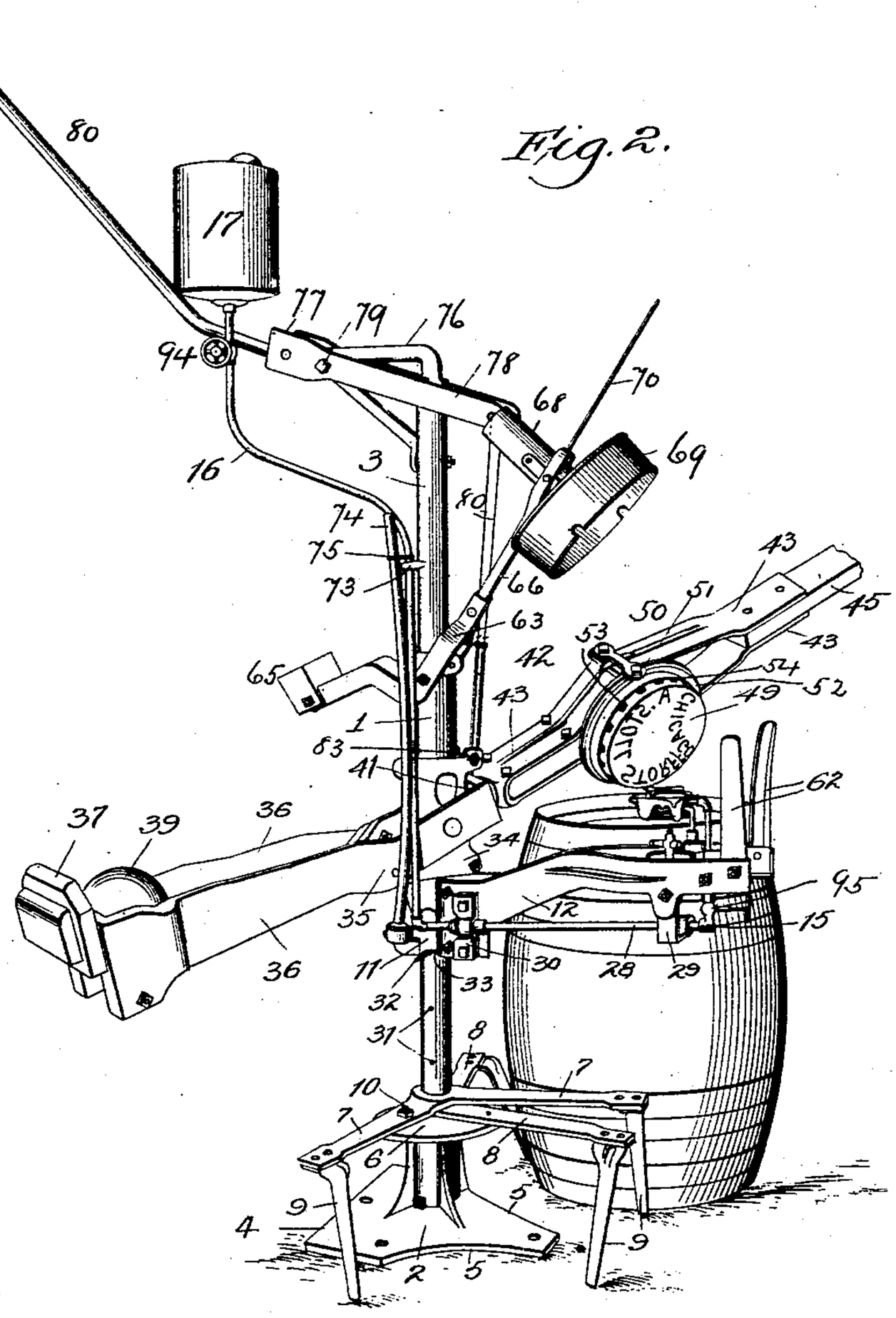
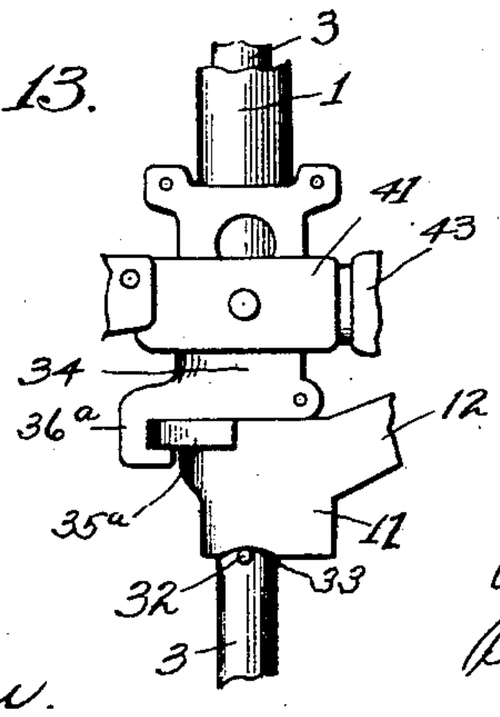


Fig. 13.



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(No Model.) 3 Sheets—Sheet 3.

A. STOLLSTORFF.

BRANDING MACHINE.

No. 587,562. Patented Aug. 3, 1897.

Fig. 4.

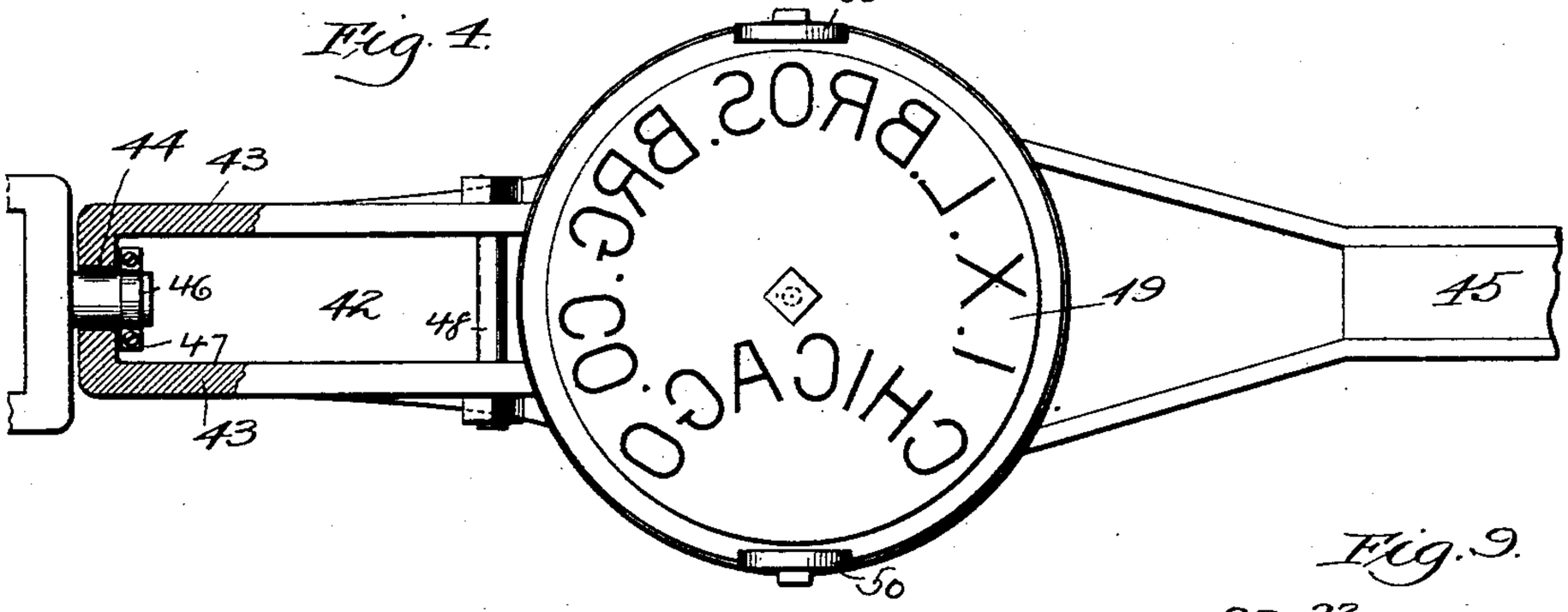


Fig. 5.

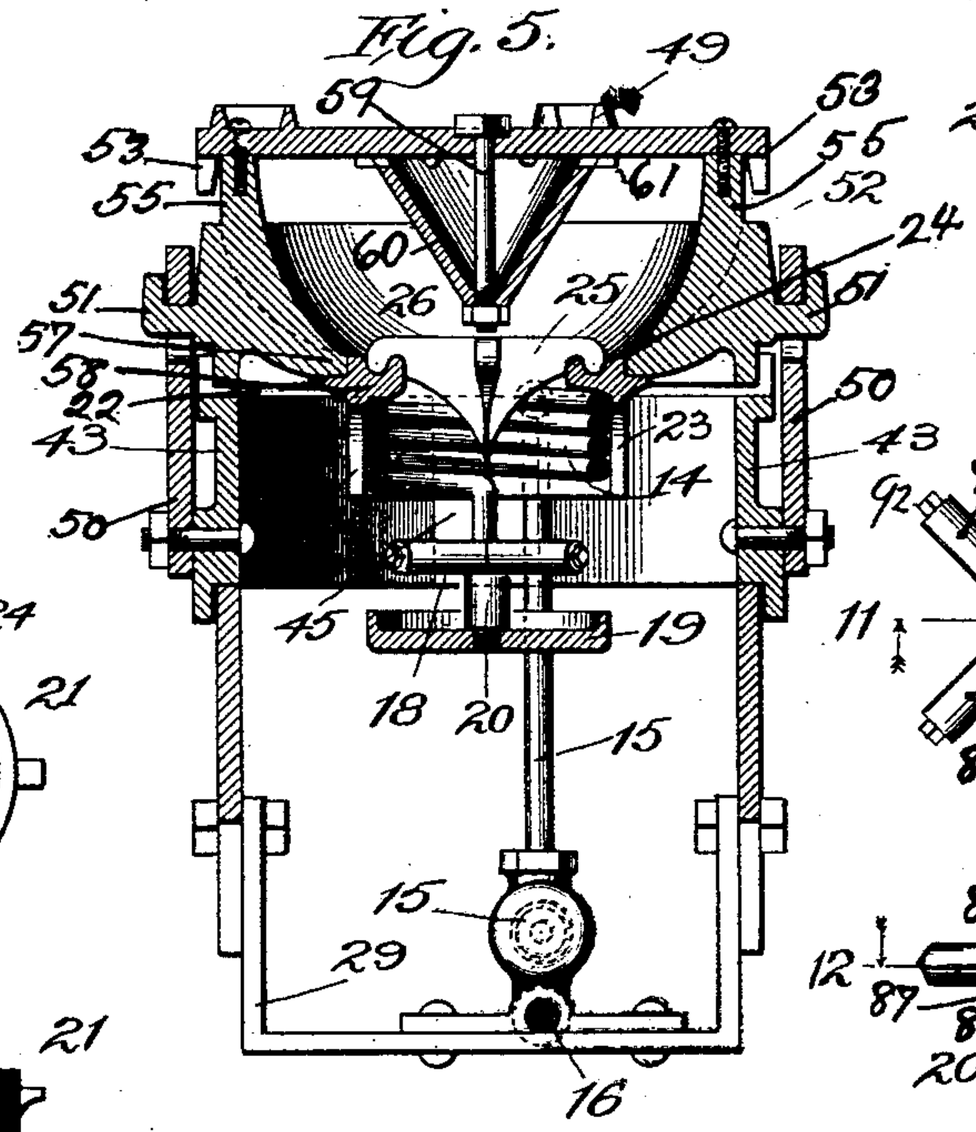


Fig. 6.

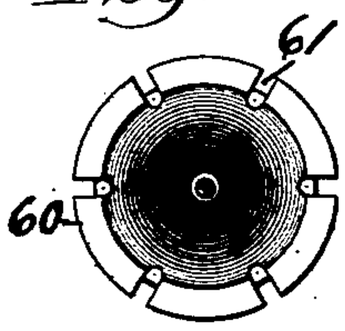


Fig. 7.

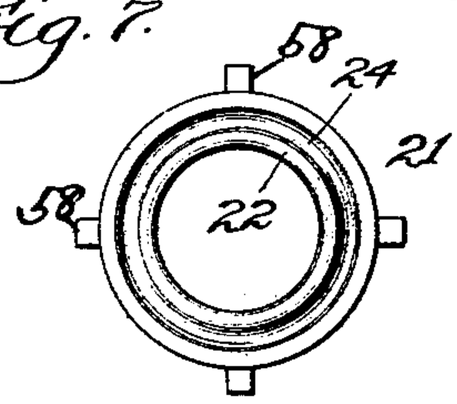


Fig. 8.

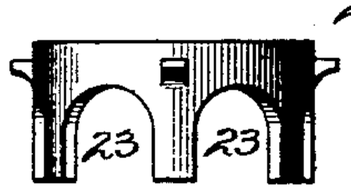


Fig. 9.

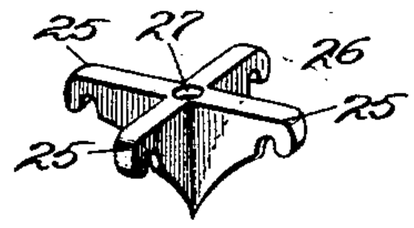
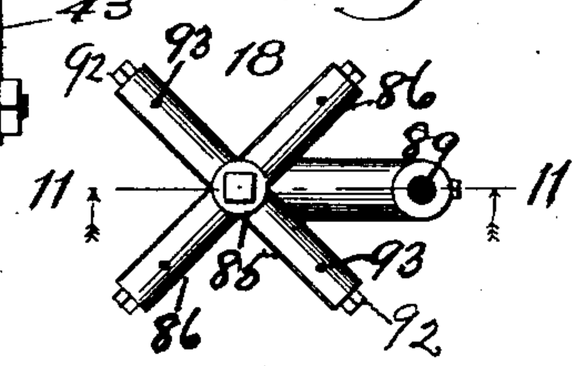


Fig. 10.



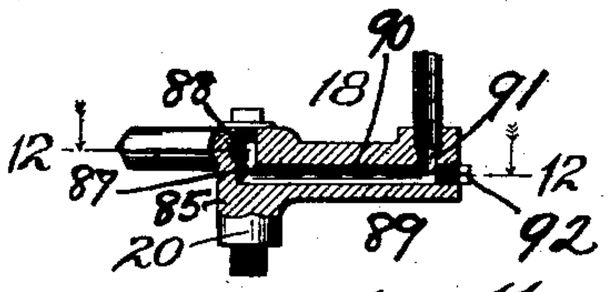
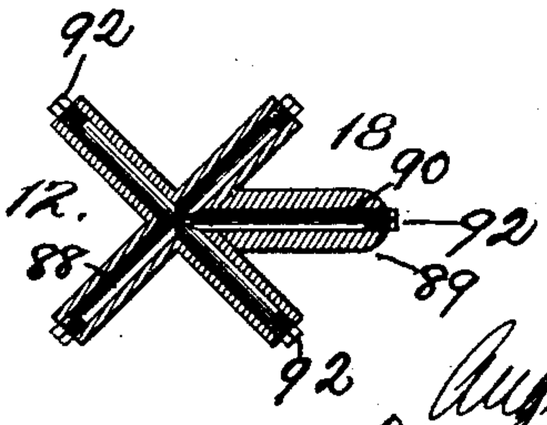


Fig. 11.

Fig. 12.



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UNITED STATES PATENT OFFICE.

AUGUST STOLLSTORFF, OF CHICAGO, ILLINOIS.

BRANDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 587,562, dated August 3, 1897.

Application filed August 10, 1896. Serial No. 602,324. (No model.)

To all whom it may concern:

Be it known that I, AUGUST STOLLSTORFF, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Branding-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a novel construction in a branding-machine, the object being to provide a cheap, durable, and efficient machine of this character; and it consists in the features of construction and combinations of parts hereinafter fully described and claimed.

In the accompanying drawings, illustrating my invention, Figure 1 is a perspective view of a machine constructed in accordance with my invention, showing the position of the brand while being heated. Fig. 2 is a similar perspective view showing the brand raised and partially turned to be applied to the heads of the barrels. Fig. 3 is a detail horizontal section taken on the line 3 3 of Fig. 1 and showing the devices for determining the position of the barrel or keg to be branded. Fig. 4 is a bottom plan view, partially in section, of the lever to which the brand is secured and showing the manner in which said lever is pivotally secured to a lever on the standard of the machine. Fig. 5 is a vertical section on the line 5 5 of Fig. 1. Figs. 6, 7, 8, and 9 are detail views. Fig. 10 is a top plan view of the hydrocarbon-burner I employ. Fig. 11 is a sectional view of the same on the line 11 11 of Fig. 10. Fig. 12 is a sectional view of the same on the line 12 12 of Fig. 11. Fig. 13 is a detail view in elevation showing the connection between the operating parts of my machine for simultaneously adjusting their position on the standard. Fig. 14 is a detail view showing the manner of holding the members of the standard in relative position.

Referring now to said drawings, A indicates the standard of a branding-machine constructed in accordance with my invention, which consists of a member 1, mounted upon a base 2, and a member 3, fitting within said member 1 and movable with relation thereto. Said base 2 comprises a sleeve provided with a lower flange 4, having two segmental edges 5 and an upper circular flange or collar 6. Pivotally mounted upon said member 1 above said collar 6 are two angle irons or bars 7 and 8, mounted one above the other and having their arms situated alternately between each other. Rigidly mounted in the outer ends of said arms are legs 9, which extend downwardly at an incline from the perpendicular, the legs on the arms of the angle-iron 7 extending in one direction and the legs on the arms of said angle-iron 8 extending in the opposite direction, the legs on each of said angle-irons extending toward the other angle-iron. Obviously by turning one of said angle-irons on its pivot the spaces between the adjacent legs of both said angle-irons, between which the barrels or kegs to be branded are adapted to stand, will be equally adjusted to receive the size of vessel to be branded. The barrels, half-barrels, or kegs abut against the lower ends of said legs 9, as shown in Fig. 2, thus insuring their positions with relation to the standard A, so that they always stand in the path of the brand. Said angle-irons are secured in position by means of bolts 10, passing through openings in said collar 6 and through openings in one of the arms of each of said angle-irons 7 and 8.

Mounted upon member 1 of standard A and vertically and revolubly movable with relation thereto is a collar 11, provided with outwardly-extending arms 12, which carry the hydrocarbon-burner 13, by means of which the brand is heated. Said hydrocarbon-burner 13 consists of a coil of pipe 14, supported upon and forming a continuation of the upwardly-extending end 15 of a pipe 16, connected with the tank or reservoir 17. The lower end of said coil 14 extends downwardly and is connected with the burner 18, which it supports. A plate or dish 19 is mounted at the lower end of a downwardly-extending arm or projection 20 on said burner 18 and is adapted to receive any overflow or drippings from said burner. A cylindrical sleeve 21, provided with an inwardly-extending circumferential flange 22, adapted to engage the uppermost coil of said hydrocarbon-burner, is supported upon said coil 14 and surrounds the same. Said sleeve 21 is provided with a plurality of recesses 23, which are adapted to

permit free circulation of air through the interstices in the coil 14 to prevent the same from being superheated. Said flange 22 is provided with a circumferential groove 24, which is adapted to receive projections on the ends of the arms 25 of a cross 26, which is supported thereon and which is adapted to divide the circular space inside of said coil 14 into four parts. Said arms 25 are practically triangular in shape, the upper edges thereof lying in the same plane, and thus make said cross deepest at its central portion. At its upper central portion said cross 26 is provided with a recess 27, the purpose of which will be hereinafter explained. Said pipe 16 is provided with a horizontal portion 28, extending from said portion 15 to said standard A, from whence it extends upwardly to said tank or reservoir 17. Said portion 28 is supported upon a cross-piece 29, extending between said arms 12 adjacent said portion 15, and near its other end is secured to the rear end portion of one of said arms 12 by means of a plate 30, bolted thereto, and is held in a recess on the inner face of said plate. Said member 1 of said standard A is provided with openings 31 at regular intervals, in which pins 32, upon which said collar 11 is supported, are adapted to be held. The lower edge of said collar 11 is provided with recesses 33, in which said pins are adapted to be received and by means of which said collar 11 is held against free rotation. Mounted upon said member 1 of said standard A above said collar 11 and supported thereon is a collar 34, vertically movable and revoluble with relation to said standard. Pivotally mounted upon said collar 34 is a lever 35, comprising two parallel arms 36, extending upon each side of said collar 34 and adapted to receive pivot-lugs 34ª, to whose outer ends a plate 37 is secured, which is provided at about its center with a rubber cushion 38, which forms a stop for an iron ball 39, running between said arms 36. Pivotally secured to the cross-plate 41, at the other end of said lever 35 on the opposite side of said standard A and revoluble with relation thereto, is a lever 42, consisting of two arms 43, connected by a cross-plate 44 adjacent said cross-plate 41 and extending therefrom parallel with each other to a point adjacent the middle portions thereof, where they diverge and again extend toward each other, the outermost ends thereof being parallel and having an arm 45 rigidly secured between the same. Said lever 42 is pivoted to said lever 35 by means of a pivot-lug 46 on the plate 41, which passes through an opening in said plate 44 and is provided at its outer end with a collar 47. Adjacent the point at which said arms 43 diverge they are connected by bolts 48 for obvious reasons. The brand or branding-plate 49 is mounted upon said lever 42 at its widest portion by means of links 50, pivotally secured at their ends to said arms 43 and to lugs 51 on a sleeve 52, upon which said branding-plate 49 is mounted respectively. In this manner said branding-plate is permitted to rock slightly, so that when pressed down upon the surface it will press equally upon all parts thereof. Said branding-plate 49 consists of a solid circular disk provided with raised letters cast integral therewith and with a circumferential flange 53, provided with recesses 54. The said disk is mounted upon upwardly-extending lugs 55 on said sleeve 52, so as to leave an opening 56 between said disk and said sleeve, through which the vitiated air passes. Said sleeve 52 is provided with a circumferential flange 57, which extends inwardly to the sleeve 21 and is adapted to rest upon outwardly-extending lugs 58 thereon. Secured to the inner face of said disk at its central portion, by means of a bolt 59, is a hollow cone 60, whose base abuts against said inner face of said disk and is adapted to protect the said central portion thereof against being heated to a greater extent than the remaining portions thereof, which would obviously cause said plate to warp and become useless. Said cone 60 is provided around its base with recesses 61 to permit the heated air and gases which may be generated therein free exit. Said cone extends downwardly close to said cross 26, when said branding-plate is inverted in order to heat the same, and to permit the same to expand without coming into contact with said cross I have provided the recess 27 therein, before referred to. While said plate is heated between the intervals of removing the branded barrels or kegs and replacing the same, said branding-plate and levers are in the position shown in Figs. 1 and 5. To insure the correct position of said brand and levers when being placed in this position, I have provided upwardly-extending diverging arms 62 on the outer ends of the arms 12, between the lower ends of which said diverging portions of said arms are adapted to fit snugly, thus guiding the same to prevent them from becoming laterally displaced and thus subjecting one side of said branding-plate to the heat in excess of the other side, which would obviously also cause warping.

When it is desired to apply the brand to a barrel or keg, the arm 45 is lifted and turned so as to bring the letters thereon lowermost, and is then swung around until it is above one of the barrels or kegs and applied to the same, and then again lifted high enough to avoid contact with the burner and the arms 62 and swung to the opposite side of the said burner and applied to the other barrel or keg. It is then again lifted, the brand inverted and swung around until the lever 42 is over the arms 62, when it is dropped between the same, thus again subjecting the branding-plate to the heat. When said arm 45 is lifted, the incline of the arms 36 is obviously reversed and causes the ball 39 to move to the position shown in Fig. 2, where it exerts greater leverage and counterbalances the weight of the

branding-plate. When said branding-plate is applied to the barrel or keg, said ball 39 returns to the position shown in Fig. 1 and thus adds the weight of the branding-plate to the pressure applied.

Pivotally mounted at the upper end of member 1 of standard A is a lever 63, which extends on both sides of said standard and consists of arms 64, bent to extend upwardly and rearwardly from standard A at an incline and carrying a weight 65 at their rear ends, which is adapted to be shifted to properly adjust it. On the other side of said standard A said arms 64 converge, and between their ends are secured the meeting ends of an iron rod 66, bent to form a loop or fork 67 at its other end, in which the chimney 68 of a hood 69 is pivoted. Said hood 69 is of slightly larger diameter than said sleeve 52 and is adapted to fit snugly over the same when in the position shown in Fig. 1, thus preventing the heated air from escaping through any outlet except said chimney 68, thus causing it to pass over said branding-plate 49 and utilizing the heat to the greatest extent. A rod or arm 70 is secured to the outer end of said rod 66, by means of which said hood is operated. Said weight 65 is so arranged as to overbalance the weight of said hood when raised to prevent the same from getting into the way of said lever 42 and so that when said hood 69 is down said weight will move so close to the standard A as to be overbalanced by the weight of said hood. Said member 3 of said standard A, as hereinbefore stated, fits within said member 1 and is vertically movable with relation thereto. Said member 3 is, however, held against vertical movement by means of a pin 71, adapted to enter an opening in said member 3 and to engage a recess 72 in the upper end of said member 1, whereby said member 3 is also held against rotation. Said member 3 is provided with a lug 73 above the upper end of said member 1, in which an opening is provided for the passage of the pipe 16, which curves outwardly therefrom and carries the reservoir 17 at its upper end. To further support said pipe 16, a pipe or rod 74 is rigidly mounted upon said collar 11 in any suitable manner and extends upwardly beside said pipe 16 and is secured thereto above said lug 73 by means of a link 75.

At its upper end member 3 of standard A carries a bracket 76, upon which a lever 77 is pivoted, which consists of a bifurcated portion 78, between which said bracket 76 is adapted to be received and to which it is pivoted by means of a bolt 79, passing through openings adjacent the rear end of said bifurcated portion 78 and through an opening in the outer end of said bracket 76, and a rod or arm 80, secured to said rear end of said bifurcated portion. Secured to the outer end of said bifurcated portion 78 are two cords or cables 81, carrying hooks 82 at their ends, which are adapted to engage a bolt 83, passing through projections 84 on said collar 34. Obviously by depressing the arm 80 said collar 34 and the parts connected therewith will be raised, or by removing the pin 32 may be lowered, slowly to any desired position, according to the size of the barrel, &c., to be branded. Said collars 11 and 34 are connected, so that they are raised or lowered together and are allowed relative rotation by means of a flange 35^a on the upper rear wall of the collar 11, which is adapted to be engaged by a hook 36^a on the collar 34. Said flange 35^a is concentric with the standard A and is adapted to be engaged by said hook 36^a throughout the movement of the latter through an arc of about one hundred and fifty degrees.

The burner 18 consists, preferably, of a casting having a central stem 85, from which four arms 86 extend at angles of ninety degress to each other. An opening 87 is bored into said stem 85, and openings 88 are bored in each of said arms 86, extending longitudinally therethrough and meeting said opening 87. An arm 89 is provided between two of said arms 86 and is provided with an opening 90, bored longitudinally therethrough and meeting said opening 87 below said openings 88. An opening 91 is bored downwardly through the upper wall of said arm 89 to meet said opening 90. Said opening 91 is screw-threaded and is adapted to receive the end of the pipe leading from the coil 14. Each of said openings 87, 88, and 90 is adapted to be closed at its outer ends by means of screw-plugs 92. Very small openings 93 are bored through the upper walls of each of the arms 86 at their outer end portions to meet said openings 88, and at these openings the hydrocarbon gases are ignited. The flames from these openings pass upwardly through the spaces between the arms 25 of the cross 26 and impinge against the branding-plate 49. A valve 94 is provided in said pipe 16 below said reservoir 17, and a valve 95 is provided in said portion 15 of said pipe for obvious reasons.

I claim as my invention—

1. In a branding-machine, a standard, a collar mounted thereon and carrying a hydrocarbon-burner, a lever pivotally and movably mounted upon said standard and carrying a branding-plate, devices carried by an arm carried by said collar for automatically adjusting the position of said branding-plate over said burner, and devices for raising and lowering said collar on said standard.

2. In a branding-machine, a standard, a collar mounted thereon and carrying a hydrocarbon-burner, a lever pivotally and movably mounted upon said standard and carrying a branding-plate, devices carried by an arm carried by said collar for automatically adjusting the position of said branding-plate over said burner, a hood pivotally mounted in a lever pivoted to said standard and adapt-

ed to cover said branding-plate, and devices for raising and lowering said collar on said standard.

3. In a branding-machine, a standard, a collar mounted thereon and carrying a hydrocarbon-burner, a lever pivotally and movably mounted upon said standard and carrying a branding-plate, devices carried by an arm carried by said collar for automatically adjusting the position of said branding-plate over said burner, a hood pivotally mounted in a lever pivoted to said standard and adapted to cover said branding-plate, and devices for raising and lowering said collar on said standard consisting of a lever pivoted at the upper end of said standard and connected with said collar by means of cords or cables.

4. In a branding-machine, a standard, a collar mounted thereon and carrying a hydrocarbon-burner, a lever pivotally and movably mounted upon said standard and carrying a branding-plate, devices carried by an arm carried by said collar for automatically adjusting the position of said branding-plate over said burner, a hood pivotally mounted in a lever pivoted to said standard and adapted to cover said branding-plate, a counterweight on said lever, and devices for raising and lowering said collar on said standard.

5. In a branding-machine, a standard, a collar mounted thereon and vertically and revolubly movable with relation thereto, a lever pivotally mounted upon said collar, a shifting weight automatically movable on said lever, an arm pivoted to said lever and longitudinally rigid therewith, a branding-plate mounted upon said arm, and devices carried by said standard and carrying heating devices adapted to receive the said arm and branding-plate in an inverted position.

6. In a branding-machine, a standard, a collar mounted thereon and vertically and revolubly movable with relation thereto, a lever pivotally mounted upon said collar, a shifting weight automatically movable on said lever, an arm pivoted to said lever and longitudinally rigid therewith, a branding-plate mounted upon said arm, means for raising and lowering said collar on said standard, and devices carried by said standard and carrying heating devices adapted to receive the said arm and branding-plate in an inverted position.

7. In a branding-machine, a standard, a collar on said standard, a lever pivotally mounted at one end upon said collar, an arm pivotally mounted upon said lever, and a branding-plate mounted upon said arm, said parts being adapted to so operate as to permit said branding-plate to be inverted, substantially as described.

8. In a branding-machine, a standard, a collar on said standard, a lever pivotally mounted at one end upon said collar, an arm pivotally mounted upon said lever, and a branding-plate pivotally mounted upon said arm, said parts being adapted to so operate as to permit said branding-plate to be inverted, substantially as described.

9. In a branding-machine, a lever pivotally mounted upon the standard, an arm pivotally secured to said lever and lougitudinally rigid therewith, and a branding-plate pivotally mounted in the ends of links pivotally secured at their other ends to said arm.

10. In a branding-machine, a branding-plate provided upon one face with the raised devices to be branded, and upon its other face and in the center thereof with a hollow cone whose base abuts against said face of said branding-plate and is provided with openings adjacent said plate and which is adapted to protect said center of said plate from becoming overheated.

11. In a branding-machine, a branding-plate provided upon one face with the raised devices to be branded, and upon its other face and in the center thereof with a hollow cone having recesses around its base which abuts against said face of said branding-plate and which is adapted to protect said center thereof from becoming overheated.

12. In a branding-machine, a lever pivotally mounted upon a collar on the standard, an arm pivotally secured to said lever and longitudinally rigid therewith, a branding-plate mounted upon said arm and adapted to be turned therewith, heating devices carried by devices on said standard and adapted to receive said branding-plate in an inverted position, and devices carried by said heating devices for automatically centering said plate over said heating devices.

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

AUGUST STOLLSTORFF.

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