

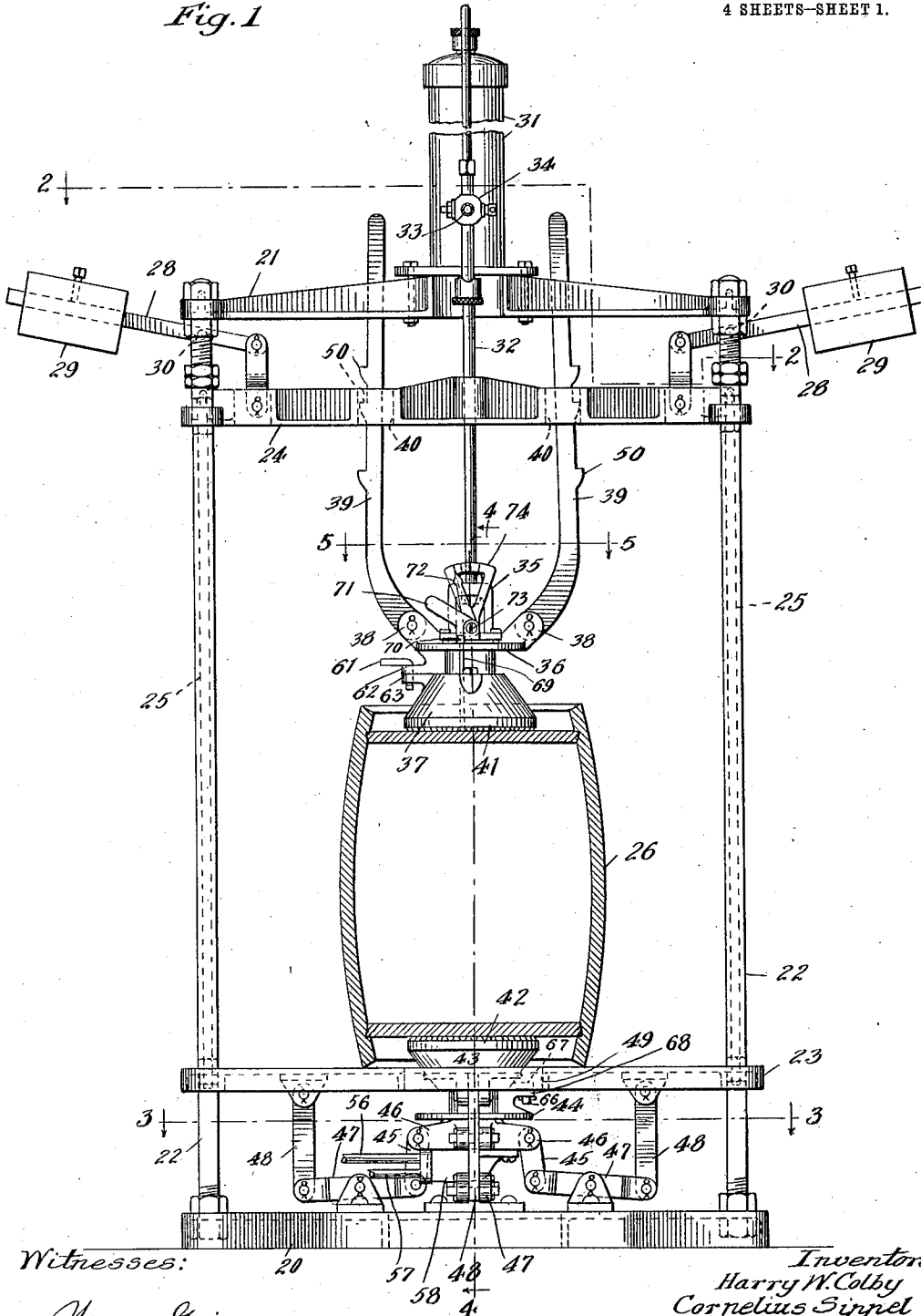
H. W. COLBY & C. SIPPEL.
BRANDING MACHINE.
APPLICATION FILED AUG. 28, 1908.

1,079,313.

Patented Nov. 18, 1913.

4 SHEETS—SHEET 1.

Fig. 1



Witnesses:

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H. W. Munday

Inventors:
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4 SHEETS—SHEET 2.

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Fig. 2

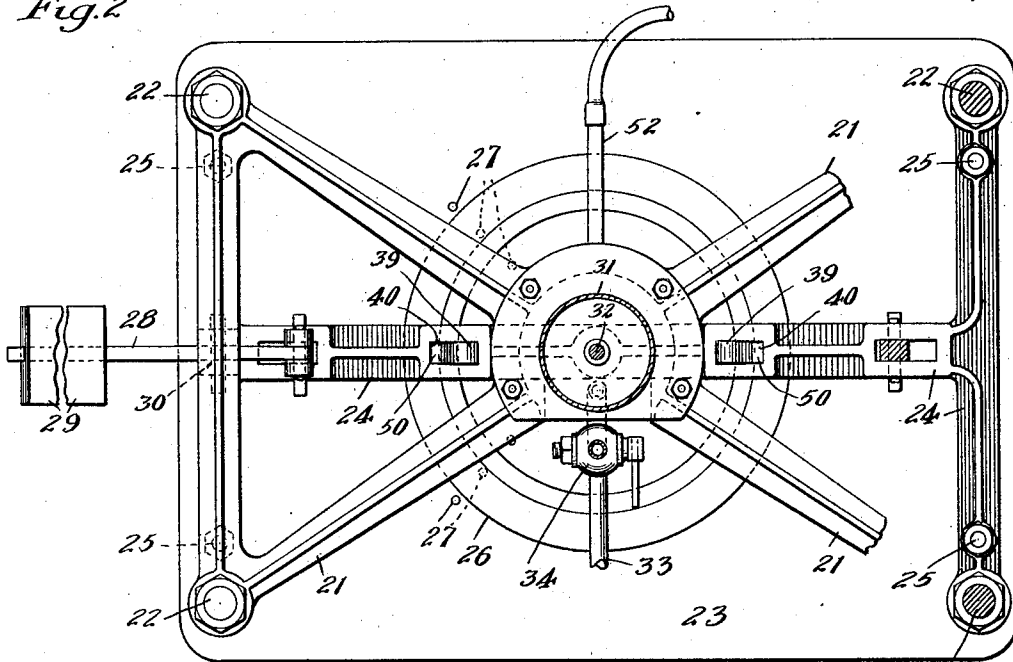
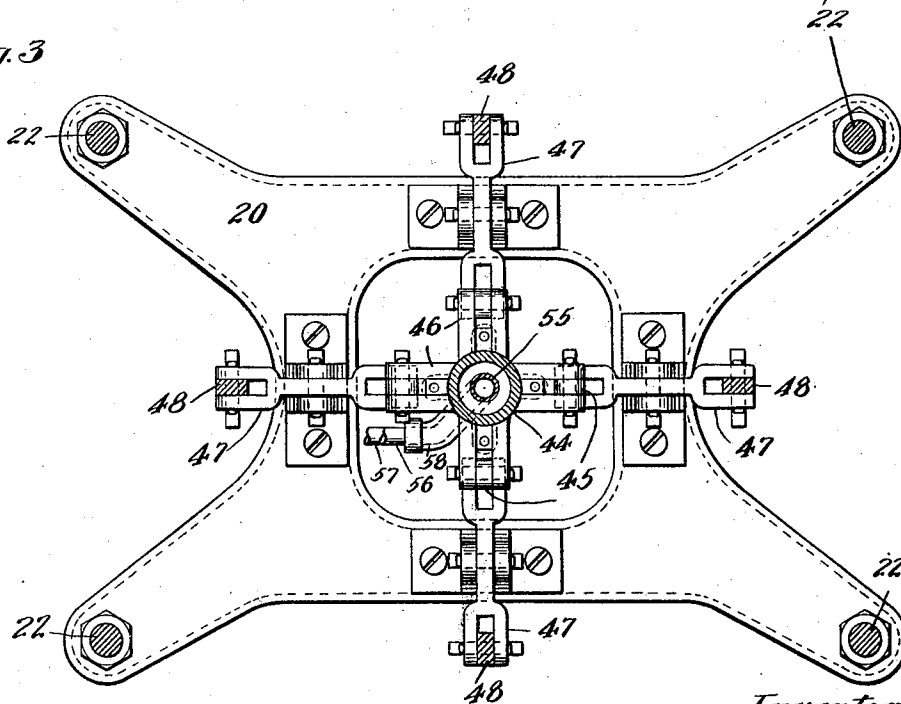


Fig. 3



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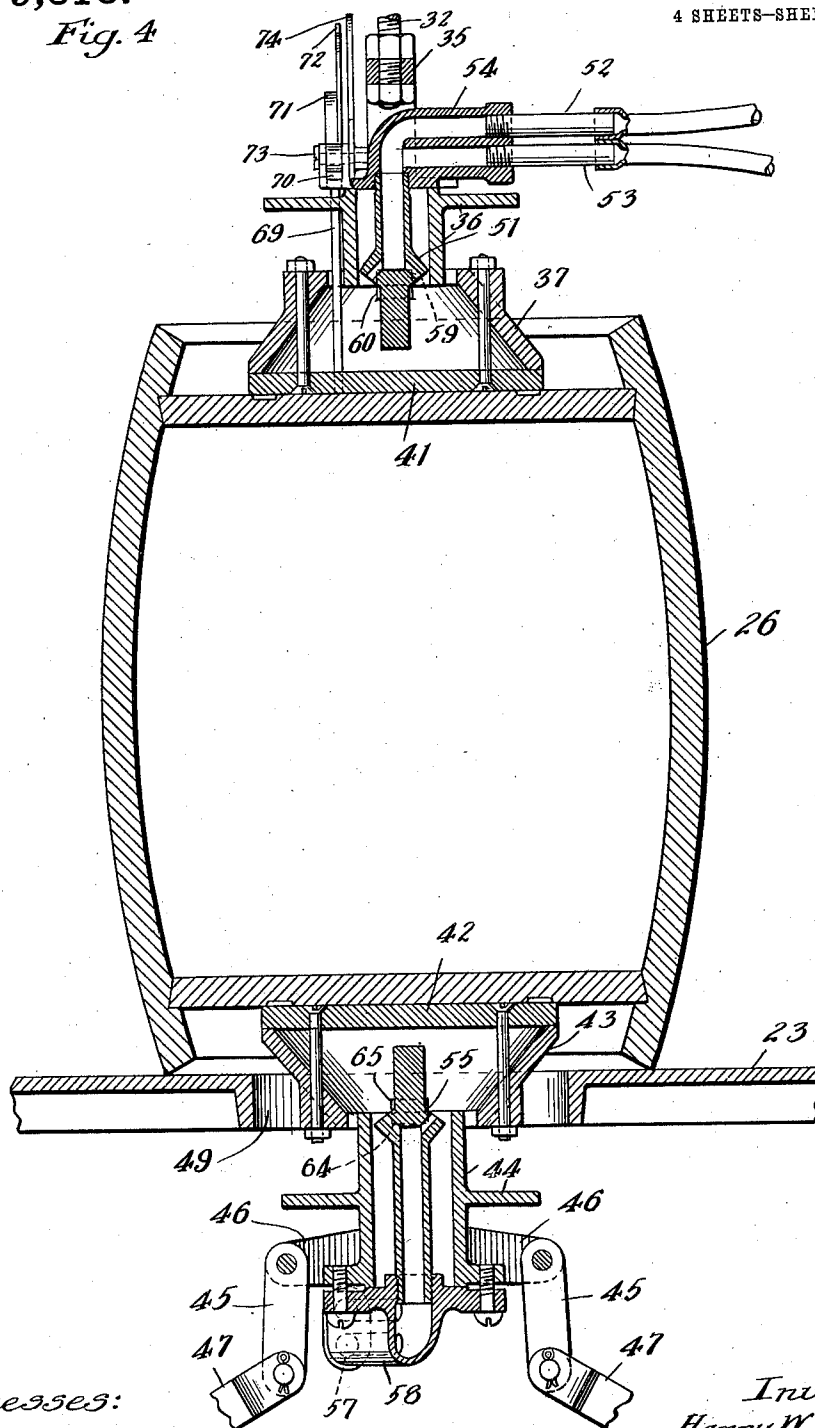
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4 SHEETS—SHEET 3.

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Fig. 4



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4 SHEETS-SHEET 4.

Fig. 5

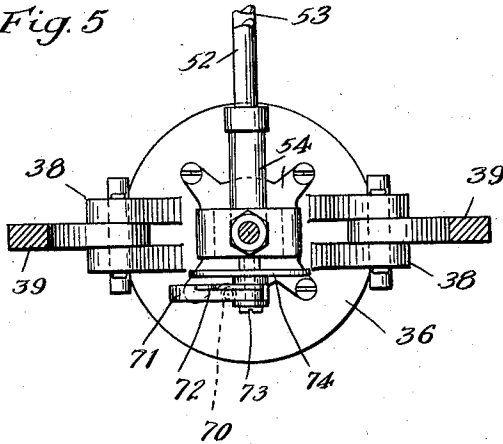


Fig. 8



Fig. 6

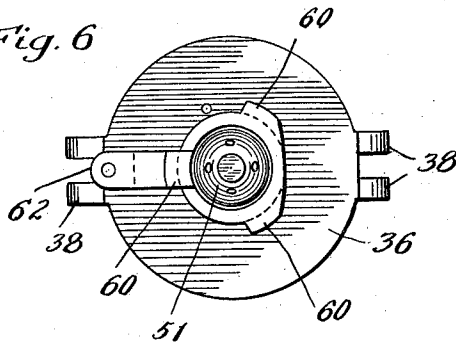
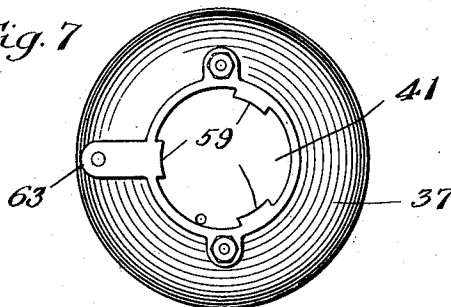


Fig. 9



Fig. 7



Witnesses:

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UNITED STATES PATENT OFFICE.

HARRY W. COLBY AND CORNELIUS SIPPEL, OF CHICAGO, ILLINOIS, ASSIGNORS, BY DIRECT AND MESNE ASSIGNMENTS, TO AUTOMATIC RACKING MACHINE COMPANY, A CORPORATION OF ILLINOIS.

BRANDING-MACHINE.

1,079,313.

Specification of Letters Patent.

Patented Nov. 18, 1913.

Application filed August 28, 1908. Serial No. 450,633.

To all whom it may concern:

Be it known that we, HARRY W. COLBY and CORNELIUS SIPPEL, citizens of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Branding-Machines, of which the following is a specification.

Our invention relates to a machine for branding the heads of kegs or barrels or other packages, and it has for an object the production of a branding machine of maximum efficiency, effecting a possible speed of operation greatly in excess of any heretofore attained, and producing branding of the greatest uniformity and of any desired distinctness or depth; and the invention has for further objects such other improvements in structure or function as may be found to obtain in any of the devices hereinafter described or claimed.

In the accompanying drawings forming a part of this specification, and in which like reference numerals indicate like parts in all of the figures, Figure 1 is a front elevation of the complete machine; Fig. 2 is a section on line 2—2 of Fig. 1; Fig. 3 is a section on line 3—3 of Fig. 1; Fig. 4 is a section on line 4—4 of Fig. 1; Fig. 5 is a section on line 5—5 of Fig. 1; Figs. 6 and 7 are respectively plan views of the mutually coupling ends of the upper branding-head housing and branding-head; Fig. 8 is a plan view of one of the branding plates; and Fig. 9 is a detail of the tappet-rod of the automatic gage for registering the depth of the branding.

By the use of a motor cylinder action to move the branding-heads and press them into contact with the surfaces to be branded, it becomes possible to obtain exactly the desired pressure and to maintain such pressure uniformly as the brand chars or sinks into the surface being impressed during the branding operation, the effectiveness of the branding being always in large measure dependent upon such uniform maintaining of the branding pressure, both for the purpose of expediting the operation and for the purpose of obtaining a uniform clean-cut impression without extending the charring too widely into the surface beyond the limits of the desired mark or lettering.

The stationary framework of the machine consists of the base 20 and top frame 21 connected at their corners by the four uprights 22. The sliding framework of the machine consists of the platform 23 and upper cross frame 24 connected by the tie rods 25 and adapted to reciprocate vertically on the aforesaid uprights 22. The platform of the said sliding framework supports the barrel or keg 26, which is centered thereon by reference to the guide holes 27, and the entire sliding framework, with the barrel supported on its platform, is normally held in raised position by the counterweight levers 28 bearing adjustable counterweights 29 and pivoted, at 30, to the top frame of the stationary framework of the machine. The top frame 21 supports the motor cylinder 31 from which the piston rod 32 depends, the said motor cylinder being supplied with compressed air through the piping 33 controlled by the cock 34. This cock can be controlled by the operator at will during the branding operation, and while the branding die is being sunk into the wood, and constitutes a means for controlling the extent of movement of the branding-head, and the extent of movement of the motor-actuated connections. The said piston rod passes freely through a central aperture in the cross frame of the sliding framework and is secured at its lower end to the U-shaped connection member 35 that supports the branding-head housing 36 to which the upper branding-head 37 is coupled. Two upwardly extended lateral projections, 38, of said housing have pivoted to them the pair of guide arms 39 that extend upward and pass freely through the apertures 40 in the upper cross frame of the sliding framework. The upper branding plate 41 for branding the upturned head of the barrel, is bolted to the under side of the aforesaid branding-head. The lower branding plate 42, for branding the downwardly turned head of the barrel, is bolted to the lower branding-head 43 that is coupled to the lower branding-head housing 44, and the said housing is supported by the short links 45 whose upper ends are pivotally connected to the four lateral projections 46, on the under side of said housing, and whose lower ends are pivotally connected to the respective inner ends of the

four levers 47 that are pivotally supported on the base of the machine. The outer ends of the said pivoted levers are pivotally connected to the upright longer links 48 whose upper ends are pivotally connected to the under side of the platform of the sliding framework of the machine. The lower branding plate surmounting the lower branding-head registers with the circular aperture 49 in the middle of the platform, and is normally positioned a little below the level of the upper surface of said platform, so that the barrel may be placed and supported upon the platform, when the machine is at rest, without contact of the lower end of such barrel with said lower branding plate. But it is obvious that the link and lever connections between the lower branding-head housing and the platform are such that as the said platform is depressed the said lower branding-head will be raised through the aperture in the middle of the platform and the lower branding plate be brought into contact with the underneath head of the barrel that is resting over said aperture.

The upper branding-head is normally in sufficiently raised position to entirely clear the upper end of the barrel, but after the barrel is in position and the motor cylinder is set in operation to drive its piston downward, the said upper branding-head descends and presses the upper branding plate into contact with the upper head of the barrel and continues such downward pressure until the depression of the barrel and the platform has raised the lower branding plate into contact with the underneath head of said barrel, and the desired branding of both heads has been effected. Then as the motor cylinder piston is raised and lifts the upper branding-head clear of the barrel, the upwardly projecting guide arms of the upper branding-head housing engage the cross frame of the sliding framework, by means of the stop projections 50, and lift the entire sliding framework until the platform supporting the barrel is raised to normal position and the lower branding-head has been withdrawn to its normal position below the level of the upper face of said platform. While the upper branding plate thus makes contact with the upper head of the barrel slightly before the lower branding-plate makes contact with the underneath head of the barrel, the lower branding plate remains in contact with the underneath head of the barrel until slightly after the upper branding plate has been withdrawn from the upper head of the barrel, so that the respective periods of contact are practically identical. The movement of the machine is also sufficiently rapid so that the interval between the first contact of the upper branding plate with the upper head of the barrel, as the

piston descends, and the first pressure contact of the lower branding plate with the underhead of the barrel, is practically negligible.

The above mentioned stops on the upwardly projecting guide arms of the upper branding-head housing, are duplicated at several intervals along said guide arms to adapt the machine to convenient use with different sizes of packages, the uppermost pair of stops being operative only when the smallest packages are being branded, and the next lower stops being operative when a larger size of packages are being branded, and so on. And when the largest possible barrels are being handled in the machine, the piston may not be depressed far enough to draw any of these stops, on the guide arms, below the cross frame of the sliding framework, and in that event the said cross frame will be lifted, on the upstroke of the piston, by direct contact with the top of the U-shaped member that connects the lower end of the piston rod with the upper branding-head housing. The latter would be the manner of operation if a full sized barrel were placed in the machine indicated in the drawings. The package shown in the drawings is intended to be a "half barrel" and proportions of the machine are indicated in relation thereto; and it will be noted by reference to Fig. 1 that in the handling of such a "half barrel" the lowermost pair of stops on the guide arms are the ones operative to raise the cross frame of the sliding framework. It is obvious that the employment of these variably spaced stops for different sizes of packages permits the machine to be operated with a minimum up and down stroke of the motor cylinder piston in every instance. But within the limits of each setting or adjustment, the reciprocation of the branding heads is optionally variable to accommodate the varying extent to which the branding may require to be sunk into the surfaces of barrels of even the same size, because of variations in the condition or character of the surface to be branded, as well as to accommodate the irregularities of dimension in even barrels of the same stock size. This is a respect in which the operation of branding bulky packages is notably different in its mechanical requirements from ordinary mere surface-printing operations. The counterweights aforesaid are adjustable on their levers to effect the proper counterbalancing of the sliding framework when different sizes or weights of barrels or kegs are to be supported on the platform, the counterweighting being slightly more than sufficient to support the sliding framework and barrel in normal position but not sufficient to positively lift said framework and barrel from their depressed position, such lifting being positively effected by the

motor cylinder raising of the upper branding-head housing in the manner hereinbefore set forth.

The upper branding-head is heated by the burner 51 projecting downward into said head and supplied with air and gas from the air pipe 52 and gas pipe 53, through the upper burner connection 54 that is integral with the U-shaped connection member surmounting the upper branding-head housing. And the lower branding-head is heated by the burner 55 projecting upward within said head and supplied with air and gas, from the air pipe 56 and gas pipe 57, through the lower burner connection 58 secured to the under side of the lower branding-head housing. The upper branding-head is coupled to the upper branding-head housing by the internal socket joint, of bayonet-joint action, consisting in the lugs 59 projecting radially inward from the upper orifice of the said branding-head and engaging the radial lugs 60 projecting outward from the lowermost periphery of the said housing. The couple of the head to the housing is effected by simply bringing the head up over the end of the housing and then giving said head a sufficient part-turn to bring the said internal and external lugs into engagement with each other, the head being held in its proper position by the removable pin 61 passed through the mutually registering holes in the lateral projections 62 and 63 with which the said housing and said head are respectively provided. The coupling and uncoupling of the lower branding-head is effected in similar manner, by means of the internal socket joint consisting in the mutually engaging internal lugs 64 and external lugs 65, the two members being in like manner held in their proper coupled position by the removable pin 66 passed through the mutually registering holes in the lateral projections 67 and 68 with which the said lower head and lower housing are respectively provided. This manner of attaching and detaching the branding-heads from their respective housings peculiarly facilitates the ready replacement of a brand of one character or size with a brand of another character or size, inasmuch as each brand may be bolted to its proper head and the entire head removed or replaced in the machine without the necessity of removing the brand from the head upon which it is mounted, such removal being generally rendered difficult by the burning of the heads and nuts of the bolts by which the branding plate is necessarily secured to its branding-head.

To automatically gage the depth to which the brand is being burned, there is provided a very light gage rod 69 passing freely through the upper branding-head housing and the upper branding-head and branding plate, said gage rod having a head 70 that

normally rests on the top face of the branding-head housing and holds said gage rod in such position that its bottom end is just flush with the face of the lettering projecting from the branding-plate. When the branding plate makes contact with the head of the barrel, the aforesaid bottom end of the gage rod just rests upon the surface of the said barrel head, and as the raised letters of the branding plate are pressed against and burned downward into the barrel head, the said gage rod will be correspondingly lifted, to an extent just equaling the depth to which the letters sink into the barrel head; and as this tappet rod is so lifted, its upper end will lift the lateral weighted arm 71 of the indicator arrow 72 that is pivoted, at 73, on the connection member that surmounts the upper branding-head housing. The lifting of said arm of the indicator arrow will cause the arrow to swing to the right and indicate the depth of the branding by reference to the graduations on the gage plate 74 that is stationarily mounted behind said arrow. This registration of the depth of the branding will be practically exact and permit the operator to always determine that the brand shall be neither too light for permanence nor too deeply charred for legibility, no matter what the variations in the temperature of the branding plate may happen to be. The bottom end of the tappet may become sufficiently heated to make a slight round mark upon the barrel head, but it will not char into said barrel head to any appreciable depth because there is no pressure upon said rod end except the slight weight of the rod itself and of the very light pivoted indicator arrow. Any tendency of the tip of the gage rod to char even a slight mark upon the barrel head may be obviated by affixing to said rod end the tip 75, of relatively non-conducting material such as asbestos.

Our invention is hereinabove set forth as embodied in a particular form of construction, but we do not limit it thereto or to less than all the possible forms in which said invention, as hereinafter claimed, may be embodied and distinguished from any prior devices.

We claim:—

1. In a branding machine, in combination, a framework having a platform support for the package, two oppositely reciprocating branding heads bearing the branding-plates, for the branding of opposite ends of the package, means for heating the branding-plates, intermittently motor-actuated operating connections adapted to reciprocate said branding heads in unison and to an extent optionally variable during the branding operation and means for varying, at will and during the branding action, the extent of movement of the said motor-actu-

ated operating connections, substantially as specified.

2. In a branding machine, in combination, a framework having a platform support for the package, two oppositely reciprocating branding heads, bearing the branding-plates, for the branding of opposite ends of the package, intermittently motor-actuated operating mechanism for reciprocating one of said branding heads, connections for automatically reciprocating the other branding head in unison with the first, and to an extent optionally variable during the branding operation, and means for varying at will and during the branding action the extent of movement of the said mechanism, substantially as specified.

3. In a branding machine, in combination, a framework having a platform support for the package, two oppositely reciprocating branding heads, bearing the branding-plates, for the branding of opposite ends of the package, burner-connections and burners for heating the reverse side of each branding-plate, intermittently motor-actuated operating mechanism for reciprocating one of said branding-heads, connections for automatically reciprocating the other branding-head in unison with the first, and to an extent optionally variable during the branding operation, and means for varying at will and during the branding action the extent of movement of the said mechanism, substantially as specified.

4. In a branding machine, in combination, a framework having a platform support for the package, two oppositely reciprocating branding heads, bearing the branding plates, for the branding of opposite ends of the package, a motor and intermittently actuated connections adapted to reciprocate said branding-heads in unison, and to an extent optionally variable during the branding operation, and means for varying at will and during the branding action the extent of movement of the said connections, substantially as specified.

5. In a branding machine, in combination, a framework having a platform support for the package, two oppositely reciprocating branding heads, bearing the branding-plates, for the branding of opposite ends of the package, a motor-cylinder and intermittently actuated connections adapted to reciprocate said branding-heads in unison, and to an extent optionally variable during the branding operation, and means for varying at will and during the branding action the extent of movement of the said connections, substantially as specified.

6. In a branding machine, in combination, a framework having a platform support for the package, two oppositely reciprocating branding heads, bearing the branding-plates, for the branding of opposite ends of

the package, burner-connections and burners for heating the reverse side of each branding-plate, and a motor and intermittently actuated connections adapted to reciprocate said branding-heads in unison, and to an extent optionally variable during the branding operation, and means for varying at will and during the branding action the extent of movement of the said connections, substantially as specified.

7. In a branding machine, in combination, a framework having a platform support for the package, two oppositely reciprocating branding heads, bearing the branding-plates, for the branding of opposite ends of the package, a motor and intermittently actuated connections for reciprocating one of said branding-heads, and connections for automatically reciprocating the other branding-head in unison with the first, and to an extent optionally variable during the branding operation, and means for varying at will and during the branding action the extent of movement of the said connections, substantially as specified.

8. In a branding machine, in combination, a framework having a platform support for the package, two oppositely reciprocating branding heads, bearing the branding-plates, for the branding of opposite ends of the package, a motor-cylinder and connections for reciprocating one of said branding-heads, and intermittently actuated connections for automatically reciprocating the other branding head in unison with the first, and to an extent optionally variable during the branding operation, and means for varying at will and during the branding action the extent of movement of the said connections, substantially as specified.

9. In a branding machine, in combination, a framework having a platform support for the package, two oppositely reciprocating branding heads, bearing the branding-plates, for the branding of opposite ends of the package, burner-connections and burners for heating the reverse side of each branding-plate, a motor and intermittently actuated connections for reciprocating one of said branding heads, and connections for automatically reciprocating the other branding head in unison with the first, and to an extent optionally variable during the branding operation, and means for varying at will and during the branding action the extent of movement of the said connections, substantially as specified.

10. In a branding machine, in combination, a framework having a support for the package, two oppositely reciprocating branding heads, bearing the branding-plates, for the branding of opposite ends of the package, operating mechanism for reciprocating one of said branding-heads, and connections for automatically reciprocating

the other branding-head in unison with the first, said connections being operated in one direction by the pressure of the first branding-head upon the package and in the other direction by the withdrawal of said branding-head, substantially as specified.

11. In a branding-machine, in combination, a framework having a support for the package, two oppositely reciprocating branding-heads, bearing the branding-plates, for the branding of opposite ends of the package, a motor and connections for reciprocating one of said branding-heads, and connections for automatically reciprocating the other branding-head in unison with the first, said connections being operated in one direction by the pressure of the first branding-head upon the package and in the other direction by the withdrawal of said branding-head, substantially as specified.

12. In a branding-machine, in combination, a framework having a support for the package, two oppositely reciprocating branding-heads, bearing the branding-plates, for the branding of opposite ends of the package, a motor-cylinder and connections for reciprocating one of said branding-heads, and connections for automatically reciprocating the other branding-head in unison with the first, said connections being operated in one direction by the pressure of the first branding-head upon the package and in the other direction by the withdrawal of said branding-head, substantially as specified.

13. In a branding-machine, in combination, a framework having a support for the package, two oppositely reciprocating branding-heads, bearing the branding-plates, for the branding of opposite ends of the package, burner-connections and burners for heating the reverse side of each branding-plate, operating mechanism for reciprocating one of said branding-heads, and connections for automatically reciprocating the other branding-head in unison with the first, said connections being operated in one direction by the pressure of the first branding-head upon the package and in the other direction by the withdrawal of said branding-head, substantially as specified.

14. In a branding-machine, in combination, a framework having a support for the package, two oppositely reciprocating branding-heads, bearing the branding-plates, for the branding of opposite ends of the package, burner connections and burners for heating the reverse side of each branding-plate, a motor and connections for reciprocating one of said branding-heads, and connections for automatically reciprocating the other branding-head in unison with the first, said connections being operated in one direction by the pressure of the first brand-

ing-head upon the package and in the other direction by the withdrawal of said branding-head, substantially as specified.

15. In a branding-machine, in combination, an upright framework having a vertically movable platform to support the package, counterweight devices and connections for normally sustaining said platform, with its supported package, in raised position, two oppositely reciprocating branding-heads, bearing branding-plates, for branding the top and bottom of the package respectively, the descent of the upper branding-head being adapted to depress said package and its platform, operating mechanism for reciprocating the upper branding-head, and connections between the platform and the lower branding-head whereby the depression and lifting of said platform automatically reciprocates said lower branding-head, substantially as specified.

16. In a branding-machine, in combination, an upright framework having a vertically movable platform to support the package, adjustable counterweight devices and connections for normally sustaining said platform, with its supported package, in raised position, two oppositely reciprocating branding-heads, bearing branding-plates, for branding the top and bottom of the package respectively, the descent of the upper branding-head being adapted to depress said package and its platform, operating mechanism for reciprocating the upper branding-head, and connections between the platform and the lower branding-head whereby the depression and lifting of said platform automatically reciprocates said lower branding-head, substantially as specified.

17. In a branding-machine, in combination, an upright framework having a vertically movable platform to support the package, counterweight devices and connections for normally sustaining said platform, with its supported package, in raised position, two oppositely reciprocating branding-heads, bearing branding-plates, for branding the top and bottom of the package respectively, the descent of the upper branding-head being adapted to depress said package and its platform, a motor and connections for reciprocating the upper branding-head, and connections between the platform and the lower branding-head whereby the depression and lifting of said platform automatically reciprocates said lower branding-head, substantially as specified.

18. In a branding-machine, in combination, an upright framework having a vertically movable platform to support the package, counterweight devices and connections for normally sustaining said platform, with its supported package, in raised position, two oppositely reciprocating branding-

heads, bearing branding-plates, for branding the top and bottom of the package respectively, the descent of the upper branding-head being adapted to depress said package and its platform, a motor-cylinder and connections for reciprocating the upper branding-head, and connections between the platform and the lower branding-head whereby the depression and lifting of said platform automatically reciprocates said lower branding-head, substantially as specified.

19. In a branding-machine, in combination, an upright framework having a vertically movable platform to support the package, counterweight devices and connections for normally sustaining said platform, with its supported package, in raised position, two oppositely reciprocating branding-heads, bearing branding-plates, for branding the top and bottom of the package respectively, the descent of the upper branding-head being adapted to depress said package and its platform, operating mechanism for reciprocating the upper branding-head, and link and lever connections between the platform and the lower branding-head whereby the depression and lifting of said platform automatically reciprocates said lower branding-head, substantially as specified.

20. In a branding-machine, in combination, an upright framework having a vertically movable platform to support the package, counterweight devices and connections for normally sustaining said platform, with its supported package, in raised position, two oppositely reciprocating branding-heads, bearing branding-plates, for branding the top and bottom of the package respectively, the descent of the upper branding-head being adapted to depress said package and its platform, guide-arms connected with the upper branding-head, operating mechanism for reciprocating the upper branding-head, and connections between the platform and the lower branding-head whereby the depression and lifting of said platform automatically reciprocates said lower branding-head, substantially as specified.

21. In a branding-machine, in combination, an upright framework having a vertically movable platform to support the package, counterweight devices and connections for normally sustaining said platform, with its supported package, in raised position, two oppositely reciprocating branding-heads, bearing branding-plates, for branding the top and bottom of the package respectively, the descent of the upper branding-head being adapted to depress said package and its platform, guide-arms connected with the upper branding-head and bearing stop-devices for engaging and lifting the counter-

weighted platform-connections on the up-stroke of the upper branding-head, operating mechanism for reciprocating the upper branding-head, and connections between the platform and the lower branding-head whereby the depression and lifting of said platform automatically reciprocates said lower branding-head, substantially as specified.

22. In a branding-machine, in combination, an upright framework having a vertically movable platform to support the package, counterweight devices and connections for normally sustaining said platform, with its supported package, in raised position, two oppositely reciprocating branding-heads, bearing branding-plates, for branding the top and bottom of the package respectively, the descent of the upper branding-head being adapted to depress said package and its platform, guide-arms connected with the upper branding-head and bearing a plurality of stop-devices for engaging and lifting the counterweighted platform-connections at different points on the up-stroke of the upper branding-head, operating mechanism for reciprocating the upper branding-head, and connections between the platform and the lower branding-head whereby the depression and lifting of said platform automatically reciprocates said lower branding-head, substantially as specified.

23. In a branding-machine, in combination, an upright framework having a vertically movable platform to support the package, counterweight devices and connections for normally sustaining said platform, with its supported package, in raised position, burner-connections and burners for heating the reverse side of each branding-plate, two oppositely reciprocating branding-heads, bearing branding-plates, for branding the top and bottom of the package respectively, the descent of the upper branding-head being adapted to depress said package and its platform, operating mechanism for reciprocating the upper branding-head, and connections between the platform and the lower branding-head whereby the depression and lifting of said platform automatically reciprocates said lower branding-head, substantially as specified.

24. In a branding-machine, in combination, an upright framework having a vertically movable platform to support the package, adjustable counterweight devices and connections for normally sustaining said platform, with its supported package, in raised position, burner-connections and burners for heating the reverse side of each branding-plate, two oppositely reciprocating branding-heads, bearing branding-plates, for branding the top and bottom of the package respectively, the descent of the upper branding-head being adapted to de-

- press said package and its platform, guide arms connected with the upper branding-head, and bearing a plurality of stop-devices for engaging and lifting the counter-weighted platform-connections at different points on the up-stroke of the upper branding-head, a motor-cylinder and connections for reciprocating the upper branding-head, and link and lever connections between the platform and the lower branding-head whereby the depression and lifting of said platform automatically reciprocates said lower branding-head, substantially as specified.
25. In a branding-machine, in combination, a framework having a support for the package, a reciprocating branding head bearing the branding-plate, a motor and connections therefrom to the said branding-head for operating the latter, and means for controlling at will and during the sinking of the brand into the wood the extent of movement of the branding-head, substantially as specified.
26. In a branding-machine, in combination, a framework having a support for the package, a reciprocating branding-head bearing the branding-plate and having its reciprocation adjustably limited and optionally variable within each adjustment, and a motor-cylinder and connections for operating said branding-head, substantially as specified.
27. In a branding-machine, in combination, a framework having a support for the package, a reciprocating branding-head bearing the branding-plate and having its reciprocation adjustably limited and optionally variable within each adjustment, burner-connections and a burner for heating the reverse side of the branding-plate, and a motor and connections for operating said branding-head, substantially as specified.
28. In a branding machine, in combination, a framework having a support for the package, a reciprocating branding-head bearing the branding-plate and having its reciprocation adjustably limited, burner-connections and a burner for heating the reverse side of the branding plate, a motor-cylinder and connections for operating said branding-head, and means for controlling at will and during the sinking of the brand into the wood the extent of movement of the branding-head, substantially as specified.
29. In a branding-device, in combination, a branding-head bearing a branding-plate, and an automatic gage, movable with the branding head, for registering the depth of the branding, said gage being free of interference with the extent of movement of the branding-head and actuated by contact with the surface into which the branding is impressed.
30. In a branding-device, in combination, a branding-head bearing a branding-plate, and an automatic gage, movable with the branding head, for registering the depth of the branding, said gage consisting in an indicator device actuated by a tappet adapted to rest freely against the surface into which the branding is impressed, substantially as specified.
31. In a branding-device, in combination, a branding-head bearing a branding-plate, and an automatic gage, movable with the branding head, for registering the depth of the branding, said gage consisting in an indicator device actuated by a tappet passing freely through the branding head and plate and adapted to rest freely against the surface into which the branding is impressed, substantially as specified.
32. In a branding-device, in combination, a branding-head bearing a branding-plate, and an automatic gage, movable with the branding head, for registering the depth of the branding, said gage consisting in an indicator device actuated by a tappet passing freely through the branding-head and plate and adapted to rest freely against the surface into which the branding is impressed, said tappet being tipped with non-conductive material, substantially as specified.
33. In a branding-device, in combination, a branding-head bearing a branding-plate, burner-connections and a burner for heating the reverse side of the branding-plate, and an automatic gage, movable with the branding head, for registering the depth of the branding, said gage being free of interference with the extent of movement of the branding-head and actuated by contact with the surface into which the branding is impressed.
34. In a branding-device, in combination, a branding-head bearing a branding-plate, burner-connections and a burner for heating the reverse side of the branding-plate, and an automatic gage, movable with the branding head, for registering the depth of the branding, said gage consisting in an indicator device actuated by a tappet adapted to rest freely against the surface into which the branding is impressed, substantially as specified.
35. In a branding-device, in combination, a branding-head bearing a branding-plate, burner-connections and a burner for heating the reverse side of the branding-plate, and an automatic gage, movable with the branding head, for registering the depth of the branding, said gage consisting in an indicator device actuated by a tappet passing freely through the branding-head and plate and adapted to rest freely against the surface into which the branding is impressed, substantially as specified.
36. In a branding-device, in combination, a branding-head bearing a branding-plate,

- burner-connections and a burner for heating the reverse side of the branding-plate, and an automatic gage, movable with the branding head, for registering the depth of the branding, said gage consisting in an indicator device actuated by a tappet passing freely through the branding-head and plate and adapted to rest freely against the surface into which the branding is impressed, said tappet being tipped with non-conductive material, substantially as specified.
37. In a branding-machine, in combination, a framework having a support for the package, two oppositely reciprocating branding-heads, bearing the branding-plates, for the branding of opposite ends of the package, an automatic gage, movable with the branding head, for registering the depth of the branding, said gage being free of interference with the extent of movement of the branding heads and actuated by contact with the surface into which the branding is impressed, and operating connections adapted to reciprocate said branding-heads in unison.
38. In a branding-machine, in combination, a framework having a support for the package, two oppositely reciprocating branding-heads, bearing the branding-plates, for the branding of opposite ends of the package, burner-connections and burners for heating the reverse side of each branding-plate, operating connections adapted to reciprocate such branding-heads in unison, and an automatic gage, movable with the branding head, for registering the depth of the branding, said gage being free of interference with the extent of movement of the branding-head and actuated by contact with the surface into which the branding is impressed.
39. In a branding-machine, in combination, a framework having a support for the package, two oppositely reciprocating branding-heads, bearing the branding-plates, for the branding of opposite ends of the package, an automatic gage, movable with the branding head, for registering the depth of the branding, said gage consisting in an indicator device actuated by a tappet adapted to rest freely against the surface into which the branding is impressed, burner connections and burners for heating the reverse side of each branding-plate, and operating connections adapted to reciprocate said branding-heads in unison, substantially as specified.
40. In a branding-machine, in combination, a framework having a support for the package, two oppositely reciprocating branding-heads, bearing the branding-plates, for the branding of opposite ends of the package, an automatic gage, movable with the branding head, for registering the depth of the branding, said gage consisting in an indicator device actuated by a tappet passing freely through the branding-head and plate and adapted to rest freely against the surface into which the branding is impressed, burner connections and burners for heating the reverse side of each branding-plate, and operating connections adapted to reciprocate said branding-heads in unison, substantially as specified.
41. In a branding-machine, in combination, a framework having a support for the package, two oppositely reciprocating branding heads, bearing the branding-plates, for the branding of opposite ends of the package, an automatic gage for registering the depth of the branding, said gage consisting in an indicator device actuated by a tappet adapted to rest freely against the surface into which the branding is impressed, burner connections and burners for heating the reverse side of each branding-plate, operating mechanism for reciprocating one of said branding-heads, and connections for automatically reciprocating the other branding-head in unison with the first, said connections being operated in one direction by the pressure of the first branding-head upon the package and in the other direction by the withdrawal of said branding-head, substantially as specified.
42. In a branding-machine, in combination, a framework having a support for the package, two oppositely reciprocating branding heads, bearing the branding-plates, for the branding of opposite ends of the package, an automatic gage for registering the depth of the branding, said gage consisting in an indicator device actuated by a tappet passing freely through the branding-head and plate and adapted to rest freely against the surface into which the branding is impressed, burner connections and burners for heating the reverse side of each branding-plate, operating mechanism for reciprocating one of said branding-heads, and connections for automatically reciprocating the other branding-head in unison with the first, said connections being operated in one direction by the pressure of the first branding-head upon the package and in the other direction by the withdrawal of said branding-head, substantially as specified.
43. In a branding-machine, in combination, a framework having a support for the package, two oppositely reciprocating branding-heads, bearing the branding-plates, for the branding of opposite ends of the package, an automatic gage for registering the depth of the branding, said gage consisting in an indicator device actuated by a tappet passing freely through the branding-head and plate and adapted to rest freely against the surface into which the branding is impressed, burner connections and burners for heating the reverse side of each branding-plate, operating mechanism for reciprocating one of said branding-heads, and connections for automatically reciprocating the other branding-head in unison with the first, said connections being operated in one direction by the pressure of the first branding-head upon the package and in the other direction by the withdrawal of said branding-head, substantially as specified.

son with the first, said connections being operated in one direction by the pressure of the first branding-head upon the package and in the other direction by the withdrawal of said branding-head, substantially as specified.

44. In a branding-machine, in combination, an upright framework having a vertically movable platform to support the package, counterweight devices and connections for normally sustaining said platform, with its supported package, in raised position, an automatic gage for registering the depth of the branding, burner-connections and burners for heating the reverse side of each branding-plate, two oppositely reciprocating branding-heads, bearing branding-plates, for branding the top and bottom of the package respectively, the descent of the upper branding-head being adapted to depress said package and its platform, operating mechanism for reciprocating the upper branding-head, and connections between the platform and the lower branding-head whereby the depression and lifting of said platform automatically reciprocates said lower branding-head, substantially as specified.

45. In a branding-machine, in combination, an upright framework having a vertically movable platform to support the package, counterweight devices and connections for normally sustaining said platform, with its supported package, in raised position, an automatic gage for registering the depth of the branding, said gage consisting in an indicator device actuated by a tappet adapted to rest freely against the surface into which the branding is impressed, burner connections and burners for heating the reverse side of each branding-plate, two oppositely reciprocating branding-heads, bearing branding-plates, for branding the top and bottom of the package respectively, the descent of the upper branding-head being adapted to depress said package and its platform, operating mechanism for reciprocating the upper branding-head, and connections between the platform and the lower branding-head whereby the depression and lifting of said platform automatically reciprocates said lower branding-head, substantially as specified.

46. In a branding-machine, in combination, an upright framework having a vertically movable platform to support the package, counterweight devices and connections for normally sustaining said platform, with its supported package, in raised position, an automatic gage for registering the depth of the branding, said gage consisting in an indicator device actuated by a tappet passing freely through the branding-head and plate and adapted to rest freely against the surface into which the branding is impressed,

burner connections and burners for heating the reverse side of each branding-plate, two oppositely reciprocating branding-heads, bearing branding-plates, for branding the top and bottom of the package respectively, the descent of the upper branding-head being adapted to depress said package and its platform, operating mechanism for reciprocating the upper branding-head, and connections between the platform and the lower branding-head whereby the depression and lifting of said platform automatically reciprocates said lower branding-head, substantially as specified.

47. In a branding-machine, in combination, an upright framework having a vertically movable platform to support the package, counterweight devices and connections for normally sustaining said platform, with its supported package, in raised position, burner-connections and burners for heating the reverse side of each branding-plate, two oppositely reciprocating branding-heads, bearing branding-plates, for branding the top and bottom of the package respectively, the descent of the upper branding-head being adapted to depress said package and its platform, operating mechanism for reciprocating the upper branding-head, and connections between the platform and the lower branding-head whereby the depression and lifting of said platform automatically reciprocates said lower branding-head, the branding-head operating connections including branding-head housings coupled to the respective branding-heads by freely disconnectible joints, substantially as specified.

48. In a branding-machine, in combination, an upright framework having a vertically movable platform to support the package, counterweight devices and connections for normally sustaining said platform, with its supported package, in raised position, burner-connections and burners for heating the reverse side of each branding-plate, two oppositely reciprocating branding-heads, bearing branding-plates, for branding the top and bottom of the package respectively, the descent of the upper branding-head being adapted to depress said package and its platform, operating mechanism for reciprocating the upper branding-head, and connections between the platform and the lower branding-head whereby the depression and lifting of said platform automatically reciprocates said lower branding-head, the branding-head operating connections including branding-head housings coupled to the respective branding-heads by tongue-and-socket joints, substantially as specified.

49. In a branding-machine, in combination, an upright framework having a vertically movable platform to support the package, adjustable counterweight devices and connections for normally sustaining said

platform, with its supported package, in raised position, burner connections and burners for heating the reverse side of each branding-plate, two oppositely reciprocating branding-heads, bearing branding-plates, for branding the top and bottom of the package respectively, the descent of the upper branding-head being adapted to depress said package and its platform, guide-arms connected with the upper branding-head and bearing a plurality of stop devices for engaging and lifting the counterweighted platform-connections at different points on the up-stroke of the upper branding-head, a motor-cylinder and connections for reciprocating the upper branding-head, link and lever connections between the platform and the lower branding-head whereby the depression and lifting of said platform automatically reciprocates said lower branding-head, the branding-head operating connections including branding-head housings coupled to the respective branding-heads by tongue-and-socket joints, and an automatic gage for registering the depth of the branding, said gage consisting in an indicator device actuated by a tappet passing freely through the branding-head and plate and adapted to rest freely against the surface into which the branding is impressed, substantially as specified.

50. In a branding machine, in combination, a framework and a motor supported thereon, a branding head bearing a branding plate and having its reciprocation adjustably limited, means connecting the said motor with the branding head for vertically reciprocating the latter, and means for controlling at will and during the sinking of the brand into the wood the extent of movement of the branding-head, substantially as specified.

51. In a branding-machine, in combination, a framework supporting a motor for vertically reciprocating the branding-head, a reciprocating branding-head bearing the branding-plate and having its reciprocation adjustably limited and optionally variable within each adjustment, and burner connections and a burner for heating the reverse side of the branding-plate, substantially as specified.

52. In a branding-machine, in combination, a framework supporting a motor cylinder for reciprocating the branding-head, and a reciprocating branding-head bearing the branding-plate and having its reciprocation adjustably limited and optionally variable within each adjustment, substantially as specified.

53. In a branding-machine, in combination, a framework supporting a motor cylinder for reciprocating the branding-head, a reciprocating branding-head bearing the

branding-plate and having its reciprocation adjustably limited and optionally variable within each adjustment, burner connections and a burner for heating the reverse side of the branding-plate, substantially as specified.

54. In a branding-machine, in combination, a framework supporting an upright motor cylinder for reciprocating the branding-head, and a vertically reciprocating branding-head bearing the branding-plate and having its reciprocation adjustably limited and optionally variable within each adjustment, substantially as specified.

55. In a branding machine, in combination, a framework supporting an upright motor cylinder for reciprocating the branding head, a vertically reciprocating branding-head bearing the branding-plate, burner-connections and a burner for heating the reverse side of the branding-plate, and means for controlling at will and during the sinking of the brand into the wood the extent of movement of the branding-head, substantially as specified.

56. In a branding-machine, in combination, a framework supporting a motor cylinder for reciprocating the branding-head, a branding-head bearing a branding-plate and having its reciprocation adjustably limited, burner connections and a burner for heating the reverse side of said branding-plate, and an automatic gage for registering the depth of the branding, said gage being free of interference with the extent of movement of the branding-head and actuated by contact with the surface into which the branding is impressed.

57. In a branding-machine, in combination, a framework supporting a motor cylinder for reciprocating the branding-head, a branding-head bearing a branding-plate and having its reciprocation adjustably limited, burner connections and a burner for heating the reverse side of said branding-plate, and an automatic gage for registering the depth of the branding, said gage consisting in an indicator device actuated by a tappet adapted to rest freely against the surface into which the branding is impressed, substantially as specified.

58. In a branding-machine, in combination, a framework supporting a motor cylinder for reciprocating the branding-head, and a branding-head bearing a branding-plate and having its reciprocation adjustably limited and optionally variable within each adjustment, the connections between said motor and said branding-head including a branding-head housing coupled to said branding-head by a freely disconnectible joint, substantially as specified.

59. In a branding machine, in combination, an upright framework, a platform to

support the package, two oppositely reciprocating branding heads bearing branding plates for branding the top and bottom of the package respectively, a motor for reciprocating the upper branding head, connections leading to the lower branding-head whereby said lower branding-head is automatically reciprocated in unison with the upper branding-head, and means for controlling at will and during the sinking of the brand into the wood the extent of movement of the branding-heads, substantially as specified.

60. In a branding-machine, in combination, an upright framework having a vertically movable platform to support the package, means for normally sustaining said platform, with its supported package, in raised position, two oppositely reciprocating branding-heads, bearing the branding-plates, for branding the top and bottom of the package respectively, the descent of the upper branding-head being adapted to depress said package and its platform, operating mechanism for reciprocating the upper branding-head, and connections between the platform and the lower branding-head whereby the depression and lifting of said platform automatically reciprocates said

lower branding-head, substantially as specified.

61. In a branding-machine, in combination, an upright framework having a vertically movable platform to support the package, means for normally sustaining said platform, with its supported package, in raised position, two oppositely reciprocating branding-heads, bearing the branding-plates, for branding the top and bottom of the package respectively, the descent of the upper branding-head being adapted to depress said package and its platform, a motor cylinder and connections for reciprocating the upper branding-head, and connections between the platform and the lower branding-head whereby the depression and lifting of said platform automatically reciprocates said lower branding-head, substantially as specified.

In testimony whereof, we have hereunto set our hands this 20th day of August, in the presence of two subscribing witnesses.

HARRY W. COLBY.
CORNELIUS SIPPEL.

Witnesses:

HENRY LOVE CLARKE,
WILLIAM A. GEIGER.