

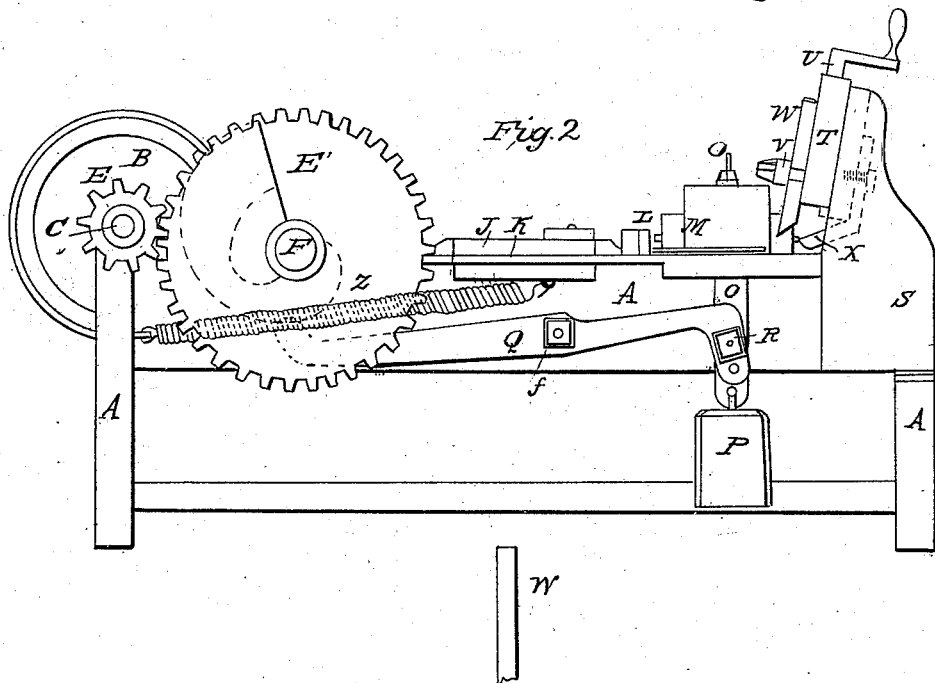
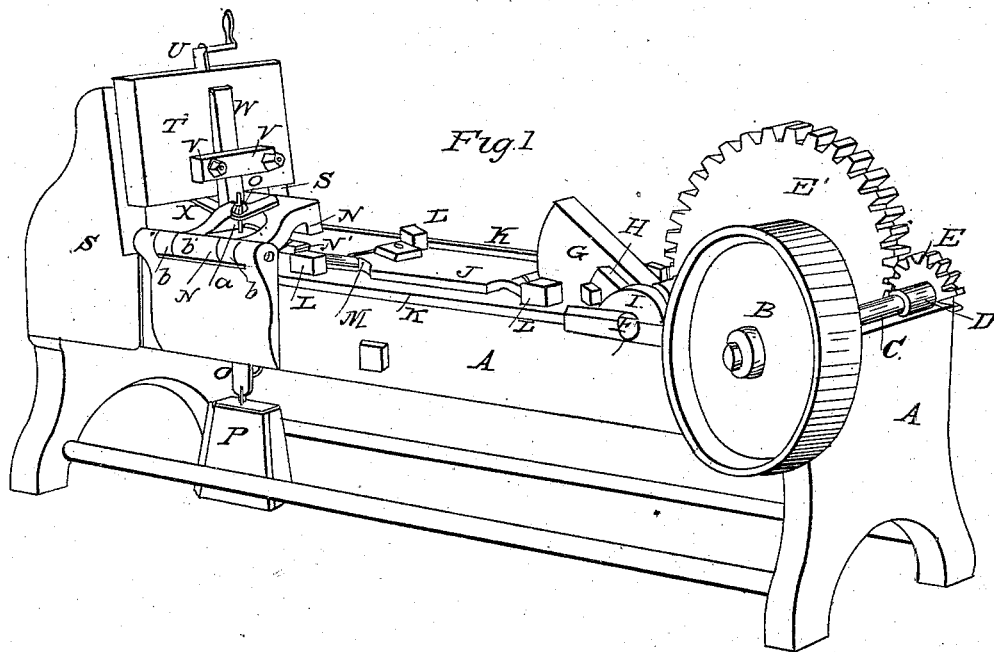
2 Sheets—Sheet 1.

G. STICKNEY.

Machine for Making Hinges.

No. 3,863.

Patented Dec. 19, 1844.



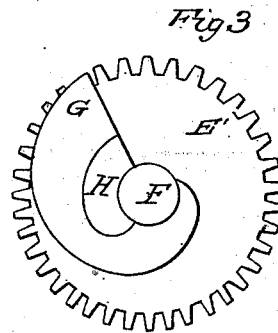
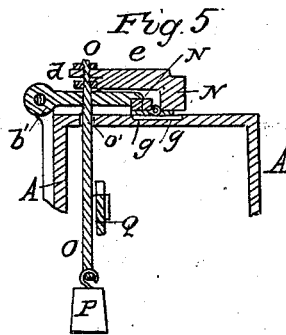
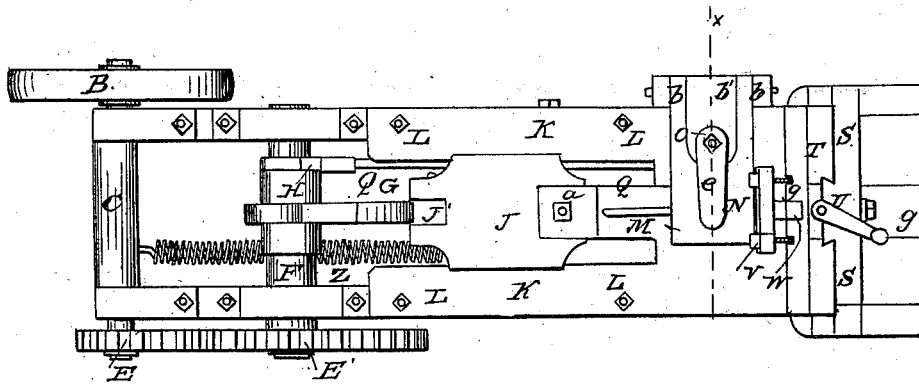
G. STICKNEY.

2 Sheets—Sheet 2.

Machine for Making Hinges.

No. 3,863.

Patented Dec. 19, 1844.



UNITED STATES PATENT OFFICE.

GAGE STICKNEY, OF BLACKWOOD TOWN, NEW JERSEY.

MACHINE FOR PLANING OR DRESSING THE KNUCKLES OF BUTT-HINGES ON THEIR INNER SIDES.

Specification of Letters Patent No. 3,863, dated December 19, 1844.

To all whom it may concern:

Be it known that I, GAGE STICKNEY, of Blackwood town, in the county of Camden and State of New Jersey, have invented a new and useful machine for planing or dressing the knuckles of butt-hinges on their inner sides whether made of cast iron or other metal; and I do hereby declare that the following is a full and exact description thereof.

The cutting, or planing, part of this instrument consists of a chisel, or planing tool, which is hollowed on its cutting edge so as to adapt it to the size of the rounding part, or knuckle joint, of the hinge upon which it is intended to operate. This cutter is firmly fixed to a head which may be raised, or lowered, by means of a screw; and the hinge to be planed is laid upon a suitable bed, where it is held down by what I call the guide jaws, which are acted on by a weight; when a hinge has been placed under these jaws, a follower is brought up against it which carries it from under them, and forces it against the chisel, or planing tool, which tool completes the operation; the follower is then drawn back by means of a spiral spring, or otherwise, and the jaws being then raised another hinge is laid on the bed of the machine, under said jaws.

In the accompanying drawings, Figure 1, is a perspective view of the machine; Fig. 2, is a side elevation thereof, a part of the frame being removed for the purpose of exhibiting parts which would otherwise be hidden. Fig. 3, shows the form of the cams on the cam shaft, and Fig. 4 is a top view of the whole machine.

A, A, is the frame. B, is the driving pulley, which is to receive a belt from any adequate motive power; on its shaft, C, there is a pinion, E, which gears into the toothed wheel, E', on the main or cam shaft, F. A slide J, is made to traverse back and forth, horizontally, between two guide pieces, or cheeks, K, K, which may be adjusted by the screws L, L. The slide J, is forced forward by means of the cam, G, which bears against a friction roller J', on the end of said slide. The cam G, must be of such size as to cause the slide J, to move forward to a distance equal to the length of the longest hinge that is to be planed by the machine. To the slide J, is attached a follower, M, which is to force the hinge

from under the jaws, N, N', and under the planing tool; this follower is to be of a width and thickness nearly equal to that of the hinge which it is to drive forward, and followers of different sizes may be attached to the slide by means of a screw, a. N, is the pressing apparatus, or guide jaws, under which the hinge is to be held while it is forced onward by the follower, M. The guide jaws are attached to the frame by hinge joints, as at b, b', admitting of their being raised when the planing of a hinge is completed, and this is done by means of the lever Q, acted upon by the cam H, at the proper moment.

Fig. 5, is a vertical cross section of the machine through the line x, x, of Fig. 4, showing the manner in which the guide jaws are formed and arranged. These jaws are divided into two parts having an independent action, and which parts press respectively on the two leaves of the hinge, there being a space between them for the knuckle joint to pass along; one of these parts works on the hinge joints b, b, and the other on the middle joint b', Fig. 4. P, Fig. 5, is a weight by which these two parts are drawn down upon the hinge, said hinge being seen in the section, at c, c. The weight P, by means of the rod O, O', draws the guide jaws down, the part N, working on the joints b, b, being made to press on one side of the hinge; and that marked N', and working on the joint b', on the other. When the rod O, is raised, it raises both of these jaws; that marked N, being raised by the nut, d, pressing against the piece e, attached to that jaw, and that marked N', being raised by a shoulder on the rod, as at O'. The lever Q, which works on a fulcrum, f, Fig. 2, is attached at one end to the rod, O, by an adjusting screw, R, and at its opposite end it is acted on by the cam, H, which is so arranged as to operate on it as soon as the hinge which is being planed has been driven from under the jaws by the follower, M.

The hinge c, c, is placed upon the bed, g, g, of the machine, directly under the jaws, when the follower M, has been retracted; the bed g, g, may be depressed in the center, as shown in the section, to facilitate the placing of the hinge on it, or it may be raised in the middle, for a like purpose, or there may be ledges on each side to confine the hinge in place; whatever form is given

to the bed should be given also to the under-
side of the follower by which the hinge is to
be driven from under the jaws and under the
planing tool. As the hinge passes from un-
der this tool, it is received under the end of
5 a guide piece, X, which is attached by a
screw to the permanent head S, of the ma-
chine, which guide piece prevents any devi-
ation of the hinge from its straight course,
10 when it is relieved from the guide jaws.
The piece X, has at its lower end a hollow
similar to that of the planing tool, and which
receives and guides the knuckle joint.

W, is the planing tool, which is attached,
15 by screws, V, V, to the sliding head T, which
bears against the stationary head S; the
sliding head is raised or lowered, and the
cutting consequently governed, by means of
the screw and winch U, in the ordinary way.
20 When the cam, G, Fig. 3, has caused the
follower to advance to the end of its course,
said cam ceases to act upon it, and it is left
free to be drawn back, which is effected by
means of a spiral spring, Z, or by a weight,
25 as may be preferred. When so drawn back,
it remains at rest for a length of time suffi-
cient to allow another hinge to be placed on
the bed.

Having thus fully described the nature of
my improvements in the machine for plan- 30
ing, or dressing, the knuckles of butt hinges,
and shown the operation of the same, I do
hereby declare that I do not claim to be the
inventor of either of the individual parts, or
devices, herein described, when taken sepa- 35
rately and alone; but

What I do claim as constituting my in-
vention, and desire to secure by Letters Pat-
ent, is—

The particular manner in which I have 40
combined and arranged these parts so as to
adapt them to the operation of planing, or
dressing, as set forth; that is to say, I claim
the manner of forming and arranging the
guide jaws, so as to press, simultaneously, 45
on each side of the hinge to be planed, in
combination with the follower, the bed, the
planing tool and the guide, pieces which
govern the hinge as it is being planed; the
whole combination and arrangement being 50
substantially the same with that herein set
forth.

GAGE STICKNEY.

Witnesses:

CH. CHRISTIAN,
CHARLES N. MILLS.