

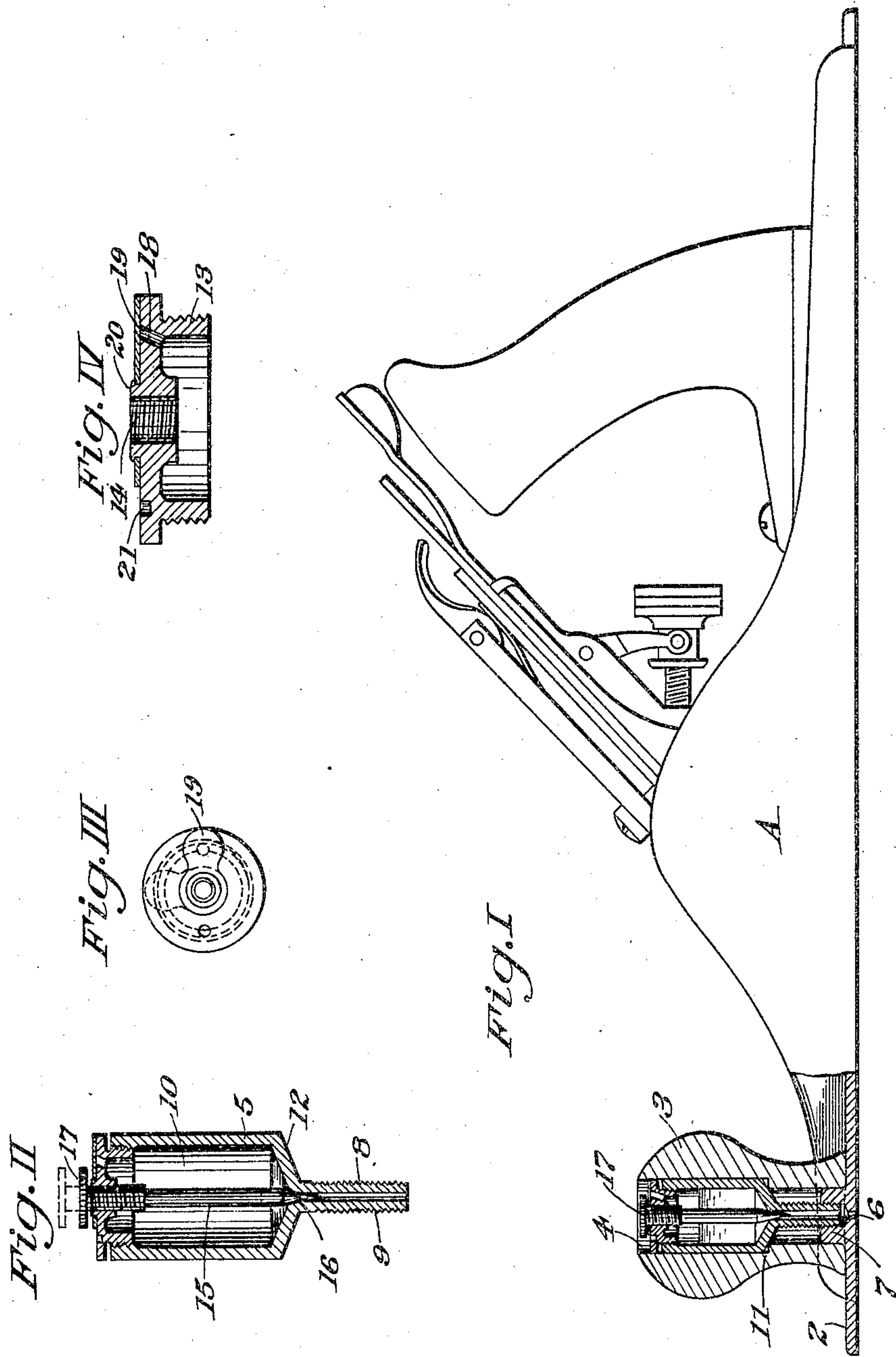
No. 770,881.

PATENTED SEPT. 27, 1904.

J. WEYLAND.
SELF OILING PLANE.

APPLICATION FILED FEB. 24, 1903.

NO MODEL.



Witnesses:
Geo. L. Goetz
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UNITED STATES PATENT OFFICE.

JOSEPH WEYLAND, OF LOS ANGELES, CALIFORNIA.

SELF-OILING PLANE.

SPECIFICATION forming part of Letters Patent No. 770,881, dated September 27, 1904.

Application filed February 24, 1903. Serial No. 144,881. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH WEYLAND, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Self-Oiling Planes, of which the following is a specification.

This invention relates to planes, and particularly to a plane adapted to automatically oil the surface to be planed or dressed.

An object of this invention is to provide a self-oiling plane comprising a cheap and simple attachment for planes now in use whereby an ordinary mechanic can readily transform the non-oiling planes now in common use into self-oiling planes, said attachment being also adapted for application in the original manufacture of planes at the factory.

A further object is to provide an improved regulable oiling attachment for planes.

The accompanying drawings illustrate the invention.

Figure I is a side elevation of a plane embodying my invention, the automatic oiling apparatus being shown in section. Fig. II is an enlarged longitudinal sectional view of the oil-receptacle and showing the means employed for regulating the flow of oil. Fig. III is a plan view taken from Fig. II. Fig. IV is a longitudinal sectional view of the cap or cover of the oil-receptacle.

As shown in the drawings, A represents a plane of the ordinary preferred construction. The front end of the stock 2 is provided with a handle 3, which may be remodeled from a handle of the ordinary construction. I provide this handle with a chamber 4, adapted to contain an oil-receptacle 5. A duct 6 leads through the stock 2 of the plane through the boss 7 and communicating into the chamber 4. This duct is enlarged through a portion of the boss 7 and threaded to receive the threaded stem 8 of the oil-receptacle 5, which stem is hollow, providing the oil-passage 9 therethrough, communicating downwardly from the main chamber 10 of the oil-receptacle. As shown, the chamber 4 toward its lower end is contracted to provide a shoulder 11, upon which the inclined bottom 12 of the receptacle rests.

13 represents a threaded cap adapted to screw into the top of the oil-receptacle 5, as shown. This cap is provided with a central bearing or opening 14, through which a spindle or needle 15 is adapted to be inserted, the point 16 of this needle being adapted to project into the upper end of the duct or passage 9 and regulating the flow of oil therethrough. The spindle or needle 15 has a threaded portion adapted to engage the threads of the bearing 14, thereby providing for the proper regulating of the needle or spindle. The needle or spindle 15 is provided with an operating-head 17.

The handle 3 is preferably formed as shown, being provided with the usual contracted neck, which makes it more convenient to grasp and hold onto with the hand. It will be seen that the chamber and oil-cup which I provide within said handle are peculiarly constructed to be employed therewith. This chamber, which extends longitudinally of the handle, is readily formed by boring a hole therethrough, said hole being contracted where it passes through the neck and being adapted to fit the boss 7. The oil-cup stem or nipple 9 is adapted to be inserted into and fit the chamber 4, being of greater diameter than the neck thereof, and its outlet-tube has external threads adapted to cause the tapering bottom of the cup to engage the internal shoulder 11 and screw into the threaded perforation of the boss, thereby to fasten both the oil-cup and handle firmly in place and furnish an oil-outlet leading to the bearing-surface of the plane.

18 represents a perforation through the cap 13 for the purpose of admitting air into the oil-receptacle.

19 represents means whereby the supply of air through the inlet 18 may be cut off or regulated, as desired, and is preferably in the form of a brass part surrounding the boss 20 at the top of the cap and held in place thereon in the groove formed by upsetting the end of said boss, as shown, leaving the plate so that it may be moved away from or over the opening or duct 18, as desired.

21 represents a notch in the cap diametrically opposite the hole 19, into which notch and hole a spanner (not shown) may be in-

serted for the purpose of screwing and unscrewing the cap from the oil-receptacle 5 and also for firmly screwing the nipple or stem 9 into the boss to thereby clamp the handle to the plane-body. It is thus seen that oil being supplied in the oil-receptacle 5 the spindle or needle 15 may be turned to regulate the outflow thereof as desired through the passage 9 and outlet 6 into the surface to be planed. By proper movement of the plate 19 the air-duct 18 may be wholly or partially opened or closed, as required, to secure the proper flow of oil.

It is often found exceedingly desirable to oil the surface to be planed or dressed, and particularly is this true in the planing of the tables or surfaces of bowling-alleys or hardwood floors or other hardwood surfaces, and by thus providing regulable means whereby oil may be automatically applied to the surface as the plane is operated thereover the operation of planing or dressing is much facilitated.

I am aware that self-oiling planes are not new; but so far as I know no device has heretofore been known which can be conveniently inserted into the small handle of planes now in use and in which the oil-supplying means can be so adjusted as to automatically supply the desired amount of oil in a steady flow.

The construction provides both pneumatic and pin regulation for the oil, so that the operator can decrease or increase the flow by simply moving the part 20 onto or from the hole 18—that is to say, the pin 15 may be set at a definite point for a determined flow of oil, and then the flow of oil can be quickly changed by simply moving the part 19 without turning the pin.

In practice the oil-cup 5, with its threaded stem or nipple 9, may be supplied to agents, who may canvass among workmen having non-oiling planes now in common use, and he may remodel the same by simply removing the usual wooden knob or handle from the internally-threaded boss 7 in front of the plane-bit and then boring a hole through the bottom of the screw-threaded hollow of the boss and through the sole of the plane. The removed knob or handle may then be bored out to form

the internally-shouldered tubular knob 3 and may then be replaced on the boss, whereupon the oil-cup may be inserted in the knob and its nipple 8 screwed into the boss until the taper bottom 12 of the oil-cup engages the internal shoulder 11 and clamps the knob firmly in place.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. A plane having an internally-threaded boss and a hole leading therefrom to the sole of the plane, an internally-shouldered hollow knob fitted on the plane and boss, and an oil-cup in the knob, having a nipple screwed into said boss and a portion engaging the internal shoulder of the knob to clamp the same to the plane-body.

2. A plane having an internally-threaded boss and a hole leading therefrom to the sole of the plane, an internally-shouldered hollow knob fitted on the plane and boss, and an oil-cup in the knob, having a nipple screwed into said boss and a portion engaging the internal shoulder of the knob to clamp the same to the plane-body, said nipple communicating with the hole leading to the sole of the plane, and said oil-cup being provided with a needle-valve entering said nipple.

3. A plane having an internally-threaded boss and a hole leading therefrom to the sole of the plane, an internally-shouldered hollow knob fitted on the plane and boss, an oil-cup in the knob having a nipple screwed into said boss and a portion engaging the internal shoulder of the knob to clamp the same to the plane-body, said nipple communicating with the hole leading to the sole of the plane, said oil-cup being provided with a needle-valve entering said nipple, and with a valve controlling admission of air to the oil-cup.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, at Los Angeles, in the county of Los Angeles and State of California, this 14th day of February, 1903.

JOSEPH WEYLAND.

Witnesses:

FREDERICK S. LYON,
JULIA TOWNSEND.