

(No Model.)

H. THOMAS.
OILING PLANERS, &c.

No. 262,857.

Patented Aug. 15, 1882.

Fig1.

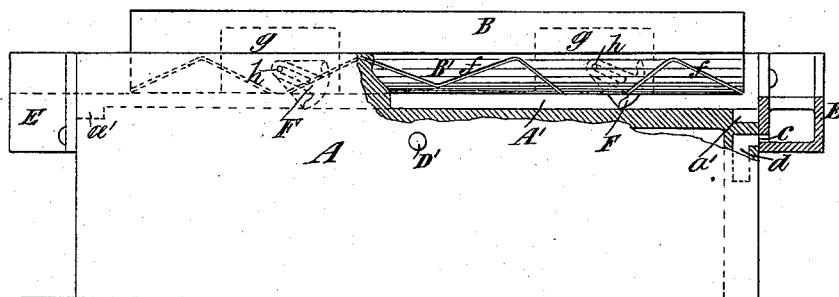


Fig2.

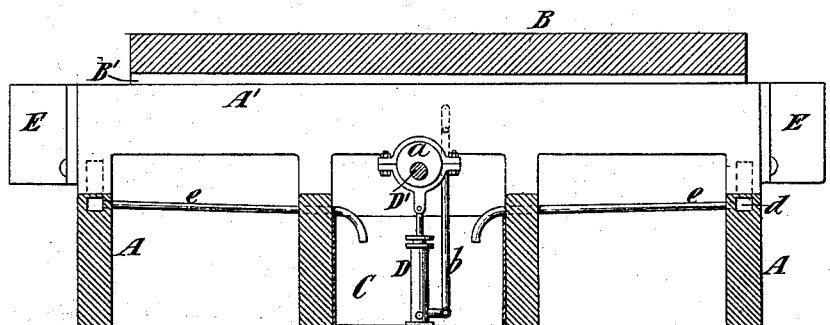


Fig4.



Fig3.

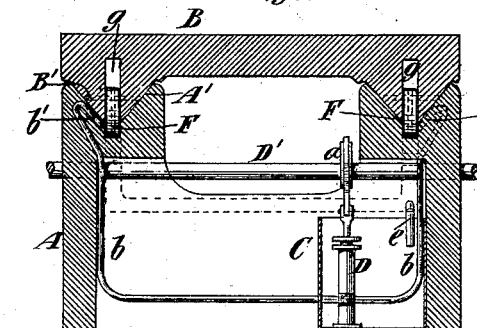
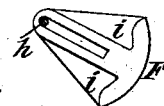


Fig5.



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OILING PLANERS, &c.

SPECIFICATION forming part of Letters Patent No. 262,857, dated August 15, 1882.

Application filed June 16, 1882. (No model.)

To all whom it may concern:

Be it known that I, HUGH THOMAS, of the city of New York, in the county and State of New York, have invented a certain new and useful Improvement in Devices for Oiling the Ways of Metal Planers and other Machines, of which the following is a specification.

The object of my invention is to maintain a constant supply of oil in the grooves or ways of the beds or frames of planers and analogous machines, and to feed and scoop up the oil out of the bottom of these grooves or ways upon the V's or projections on the table which work in said grooves or ways.

To this end my invention consists essentially in the combination, with the ways or grooves, of an oil-supply tank, pipes leading therefrom to the ways or grooves, boxes or chambers at the ends of the ways or grooves, into which the oil may overflow from the ways or grooves, and pipes or passages for conducting oil from said overflow boxes or chambers, whereby I provide for maintaining an ample supply of oil in the ways or grooves. The oil-supply tank may be above the ways or grooves, in which case the oil would be supplied by gravity; or the said tank may be arranged in the frame of the planer or machine and a pump employed to supply the oil, and in the latter case the pipes or passages from said overflow boxes or chambers will return the oil directly into said tank.

The invention also consists in the combination, with the ways or grooves, and V's having oblique or diagonal grooves in their faces, of feeders consisting of rolling tongues or blocks pivoted loosely in and hanging below the V's, and adapted to drag upon the bottoms of the ways or grooves and scoop up or feed the oil into the said oblique or diagonal grooves, as hereinafter more fully described.

In the accompanying drawings, Figure 1 represents a partly-sectional side elevation of the frame and bed of a planer embodying my invention, the section being taken through one of the ways or grooves. Fig. 2 represents a longitudinal section taken between the ways or grooves. Fig. 3 represents an irregular transverse section thereof. Fig. 4 represents a transverse section of one of the overflow boxes or chambers, and Fig. 5 represents a

side view of one of the feeders on a larger scale.

Similar letters of reference designate corresponding parts in all the figures.

A designates the frame of a planer, in which are the usual V-shaped ways or grooves, A', and B designates the movable bed, which is provided with the usual V's, B', fitting the ways or grooves A'.

No operating mechanism for the bed is here shown, as it forms no part of my invention.

C designates an oil-supply tank located in the frame A, and D designates a pump, which is located therein and which may be operated by an eccentric, *a*, upon a shaft, D', which may be rotated constantly when the planer is in operation. The pump D is provided with two discharge-pipes, *b*, which extend upward into proximity to the grooves or ways A', and these pipes terminate in downwardly-turned portions *b'*, which are in the faces of the ways or grooves A', as clearly shown in the left-hand way or groove in Fig. 3. The ends of the pipes *b* are turned down so that they will not be liable to clog up with dirt, and by means of the pump the oil is supplied constantly to the ways or grooves. The oil might be supplied from an elevated reservoir, in which case a pump would not be necessary; but the supply-pipe should be provided with a valve connected with the starting and stopping mechanism of the planer, so as to be opened when the planer is started and closed when it is stopped.

At each end of each way or groove A' is a box or chamber, E, which is secured to the frame A, so as to make an oil-tight joint between the two, and the walls of these boxes or chambers are notched or cut down so that the V's B' may pass through them. In each box or chamber E is an aperture, *c*, which communicates with a passage, *d*, cored in the frame, one passage being provided for the two boxes or chambers at each end of the ways or grooves, and from each passage *d* a pipe, *e*, leads to the tank C. As the oil is constantly supplied to the ways or grooves there is a constant overflow into the boxes or chambers E, and through the passages *d* and pipes *e* the oil is returned into the tank C.

In lieu of the passages *d*, the overflow boxes or chambers at each end of the planer might be

connected by a pipe, from which the pipe *e* would extend.

At the inner ends of the ways or grooves *A'* are depressions or recesses *a'*, in which the chips and dirt falling into the ways or grooves are collected, and from which they may be removed.

The faces of the *V's B'* have formed in them oblique or diagonal grooves *f*, as shown in Fig. 1, and mortises or slots *g*, extending upward from their lower edges, and in said mortises or slots are loosely-fitting blocks or tongues *F*. These blocks or tongues *F* are loosely pivoted by pins *h*, which pass through slots in the blocks or tongues, so that the latter may hang below the *V's B'* and drag upon the bottoms of the ways or grooves *A'*, as shown in Figs. 1 and 3, and as the bed is reversed at each end of its movement the blocks or tongues are pushed upward into the mortises *g* and roll over on their lower arc-shaped faces, so that they will become reversed in position as the bed moves in the opposite direction.

The blocks or tongues *E* are recessed at their sides, as shown at *i* in Fig. 5, and as the bed moves they incline backward, as shown in Fig. 1, and act as feeders to scoop up oil and deliver it upon the faces of the *V's B'* and into their grooves *f*, and thus insure perfect lubrication.

By my invention I not only provide for more effective lubrication, but also effect an economy of oil.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with the ways or grooves of a planer or other machine, of an oil-supply tank, pipes leading therefrom to the ways or grooves, overflow boxes or chambers at the ends of the ways or grooves, and pipes or passages for conducting oil from said boxes or chambers, substantially as described.

2. The combination, with the ways or grooves of a planer or other machine, of an oil-supply tank below the same, a pump and pipes for supplying oil to the ways or grooves, overflow boxes or chambers at the ends of said ways or grooves, and pipes for returning oil from said boxes or chambers to said tank, substantially as described.

3. The combination, with the ways or grooves *A'*, of the oil-supply pipes *b*, having downwardly-turned ends *b'*, the overflow boxes or chambers *E*, and pipes or passages for conducting oil therefrom, substantially as described.

4. The combination, with the *V's B'*, having grooved faces, and the ways or grooves *A'*, of the reversible rolling feeders *F*, loosely secured in the *V's* and adapted to drag in the ways or grooves, substantially as described.

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