

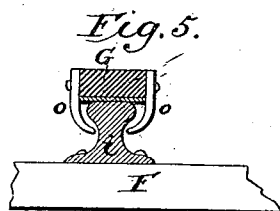
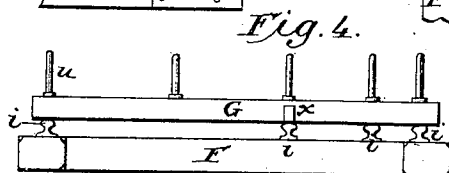
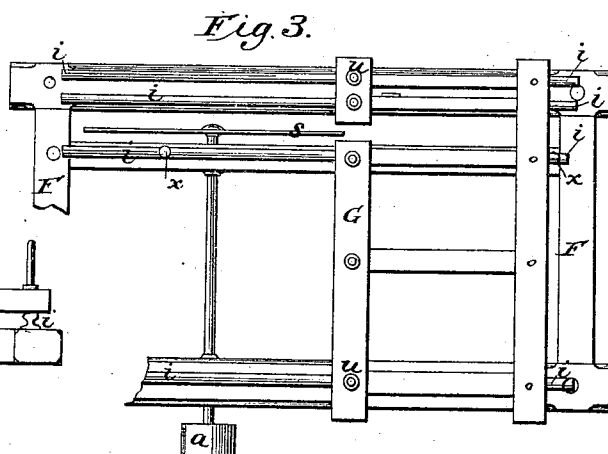
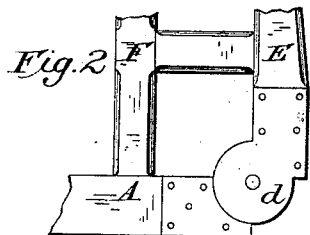
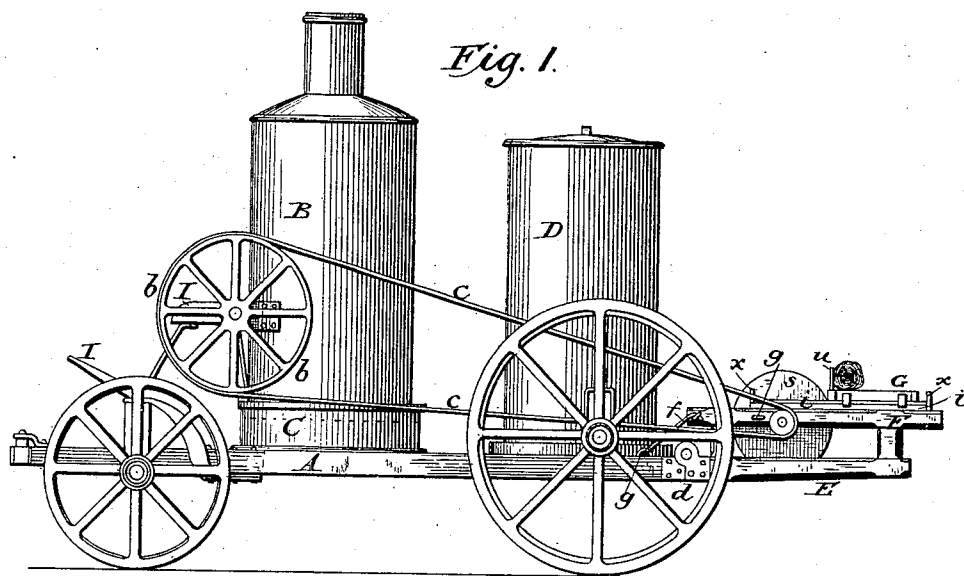
(No Model.)

E. N. DUNCKEL.

PORTABLE STEAM SAWING MACHINE.

No. 284,620.

Patented Sept. 11, 1883.



Attest
Edward E. Dunkel
Louis B. Palquett

Inventor.
Edward E. Dunkel

UNITED STATES PATENT OFFICE.

EDWIN N. DUNCKEL, OF BUTTE CITY, MONTANA TERRITORY.

PORTABLE STEAM SAWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 284,620, dated September 11, 1883.

Application filed March 16, 1883. (No model.)

To all whom it may concern:

Be it known that I, EDWIN N. DUNCKEL, a citizen of the United States of America, residing at Butte City, in the county of Silver Bow and Territory of Montana, have invented certain new and useful Improvements in Portable Steam Sawing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention is a portable steam sawing-machine, and embraces the following peculiar features: a carriage-gear'd truck-frame suitably constructed to support and carry a combined boiler, engine, water-tank, and saw-frame; also, said saw-frame supporting a sliding table suitably fastened upon a hinging extension of the rear end of said truck-frame, and, lastly, said sliding table provided with a side-bar recess for saw-passage, four or more H rails or slides suitably fastened upon said saw-frame, and a suitable number of sliding claws loosely fitting under the upper flanges of said rail-slides, all of which and their purposes are hereinafter more fully described, and illustrated by the accompanying drawings, in which the same letters designate identical parts of my invention in the different figures, respectively.

Figure 1 illustrates a side elevation of my machine, showing the truck-frame supported on wheels and supporting the boiler, engine, tank, and saw-frame, the last erected upon the said hinged end of the truck-frame, the dotted lines at bottom of boiler showing the height of water in the water-jacket of the boiler and engine-bed. Fig. 2 illustrates a part of said hinging end of the truck-frame, showing its hinged extension turned up into a vertical position. Fig. 3 illustrates a top view of the sliding table and saw-frame, showing the said recess for the saw-passage and the tops of the rail-slides. Fig. 4 illustrates the rear end of said table, showing the ends of the rail-slides and the said sliding claws, which keep and guide the table upon them. Fig. 5 illustrates a portion of said sliding table and saw-frame, showing a cross-section of one of said rail-slides and a pair of the sliding-claws curving under its upper flanges.

The letter A represents the said truck-frame, which is constructed of wooden beams or timbers, of suitable solidity and strength, when

properly hung or mounted upon the axles of two pairs of wheels, as shown, to suitably carry and support the combined vertical boiler and engine B, together with its wrought-iron bed C, the water-tank D, and the hinged and extended end E of the said truck-frame, with its incumbent saw-frame F and sliding table G.

The usual means by which the machine may be drawn about is attached to the front axle, and the seat I is suitably constructed and fixed upon the front end of the truck for the driver and engineer.

The engine and boiler B are of the vertical combination class, and impart motion to the arbor-drum *a* of the saw *s* by means of the usual fly-wheel, *b*, and belt *c*. Said bed C is furnished with a water-jacket to keep it cool and from burning the supporting-beams of the truck below.

The water-tank D is constructed of either wood or metal, of suitable shape and capacity, and suitably fixed upon the truck-frame A between the said boiler and engine and the rear axle of the truck-wheels to readily supply water to said boiler. At a suitable distance behind the said rear axle, and upon the rear end of said truck-frame A, is suitably hinged the said extension-frame E, of such corresponding strength of framing as to securely support the saw-frame F and its said incumbent apparatus. The hinges *d*, by which the said extension and saw frame are swung upon the rear ends of the longitudinal beams of the truck-frame A, are of suitably-sized boiler-iron, and of the preferable form of those used in folding rules. Said hinges not only securely hang said extension and sawing apparatus, but enable the same to be readily swung into a vertical position upon the rear end of the truck-frame, thereby putting the saw out of the way and power of harm, affording easy access to it for the purpose of adjustment or repair, and by thus shortening the tail end of the said truck-frame allowing the machine to be wheeled more shortly round in narrow places between obstructions. Furthermore, the said hinging arrangement allows the connecting-belt *c* to be easily adjusted and tightened upon the arbor-drum *a* by simply raising and lowering the end of the said extension-frame. By means also of the shifting rod-hooks *f* and the staples *g*, the said extension-frame is secured in place when

turned up, and the hinges *d* are assisted in preventing the same from swaging when turned down.

The saw-frame F is suitably erected upon 5 and supported above the extension-frame E, as shown, and is provided with the saw or saws *s*, arbor-mounted in the usual way, and hung so as to clear the water tank and wheels whenever the frame is placed in a vertical position. Along the top of the longitudinal bars 10 of said frame are fastened the said rail-slides *i*, upon which the table G is slid forward and backward, said slides being of the H-rail form, and made of steel. Said sliding table 15 G consists of a strongly-braced wooden frame, as shown, with the recess *m*, made by cutting through the front cross-bar, and reaching from the front of the frame to the rear cross-bar, for receiving the saw when the table is slid forward. 20 Underneath each bar of the table, which slides upon one of said rails *i*, is fastened a steel strap, to reduce wear and friction; and near each end of the said bars a pair of metallic claws, *o*, are suitably fastened, as shown, 25 and made to curve under the upper flanges of the rail-slides, to suitably keep and guide the table upon them. Finally, the tenon-pins *u* of the table-frame are extended vertically upward sufficiently to straighten the sticks of 30 wood or timber to be sawed at a right angle to the cut of the saw, and the check-pins *x* are suitably fixed into the middle rail-slide to properly limit the extent of the sliding of the table upon the saw-frame.

35 I do not claim, broadly, in view of prior

patents, the portable steam engine and boiler, the carriage-gear truck-frame, nor the saw-frame supporting a sliding table herein described, either separately or in combination; but,

40 Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a portable sawing-machine, as herein described, the combination of the wheeled 45 truck-frame A, the vertical boiler and engine B, the water-tank D, with the hinging extension-frame E, substantially as and for the purposes herein specified.

2. In the portable sawing-machine herein 50 described, the truck-frame A, in combination with the extension and supporting frame E, the hinges *d*, the saw-frame F, the shifting rods *f*, and staples *g*, substantially as and for the purposes herein specified. 55

3. The combination of the wheeled truck-frame A with the hinging extension E, supporting the saw-frame F, provided with the arbor-mounted saw *s* and the rail-slides *i*, and with the table-frame G, provided with the 60 sliding claws *o* and the sliding strap *z*, substantially as and for the purposes herein specified.

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

EDWIN N. DUNCKEL.

Witnesses:

W. O. SPEER,
JOS. DEMARS.