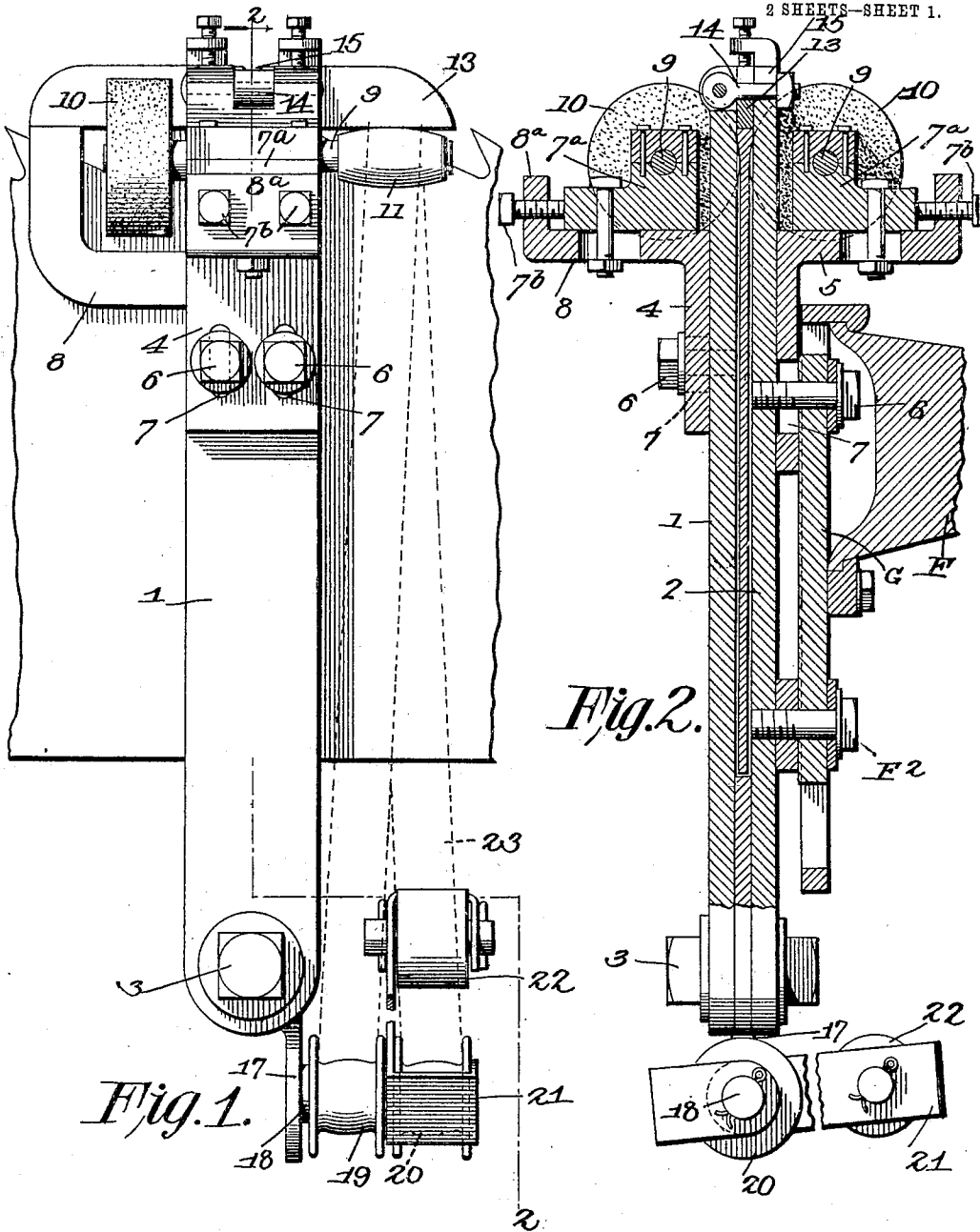


No. 810,610.

PATENTED JAN. 23, 1906.

E. L. BISHOP.
SAW DRESSING MACHINE.

APPLICATION FILED JAN. 4, 1905.



Witnesses
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2 SHEETS—SHEET 2.

Fig. 3.

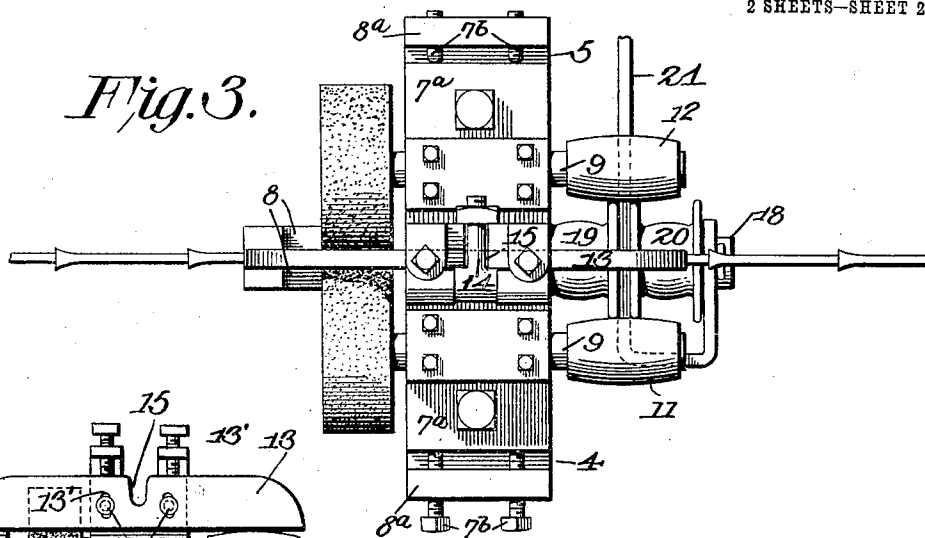


Fig. 5.

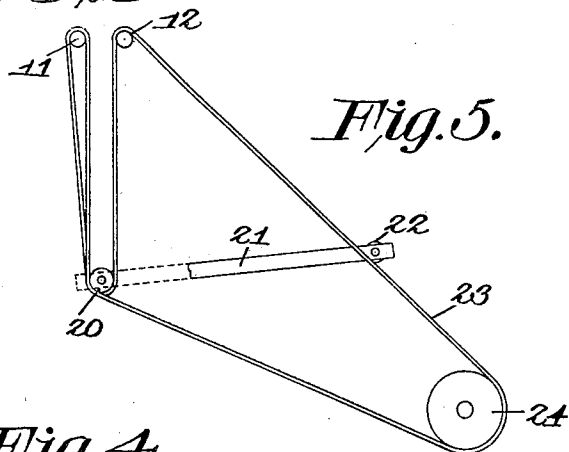
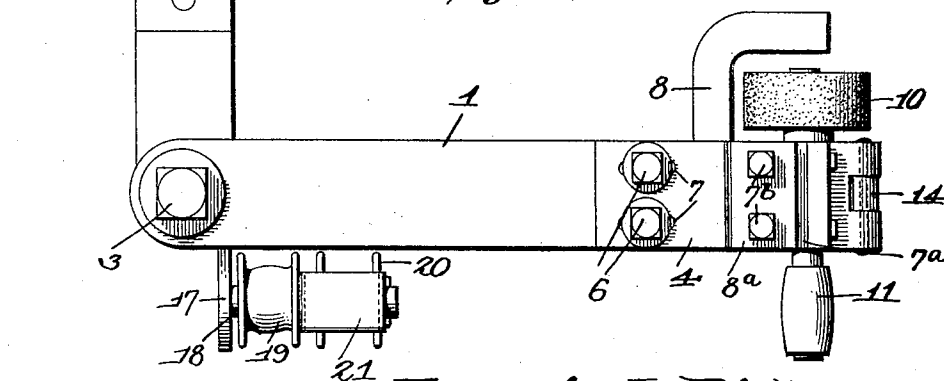


Fig. 4.



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UNITED STATES PATENT OFFICE.

EMERIE L. BISHOP, OF WAUSAUKEE, WISCONSIN.

SAW-DRESSING MACHINE.

No. 810,610.

Specification of Letters Patent.

Patented Jan. 23, 1906.

Application filed January 4, 1905. Serial No. 239,677.

To all whom it may concern:

Be it known that I, EMERIE L. BISHOP, a citizen of the United States, residing at Wausauke, in the county of Marinette and State of Wisconsin, have invented a new and useful Saw-Dressing Machine, of which the following is a specification.

This invention relates to saw-dressing machines; and it has particular reference to machines for side-dressing the teeth of band-saws.

Among the objects of the invention are to simplify and improve the construction of this class of machines.

Another object is to construct a machine which may be used in connection with any of the well-known machines for grinding the faces of the saw-teeth and for swaging the latter, so that by a single operation a saw may be restored to working condition, thereby saving time and expense.

Another object of the invention is to provide a device which may be supported in operative position upon the points of the saw-teeth, so that it may be movable vertically with the saw.

With these and other ends in view, which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of embodiment of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that the right is reserved to any changes, alterations, and modifications to which recourse may be had within the scope of the invention and without departing from the spirit or sacrificing the efficiency of the same.

In said drawings, Figure 1 is a side elevation showing the device applied to a saw in position for operation. Fig. 2 is a vertical sectional view taken on the line 2 2 in Fig. 1. Fig. 3 is a top plan view. Fig. 4 is a side elevation showing the device with the side members thereof separated and ready to be placed upon a saw-blade. Fig. 5 is a diagrammatic view, on a reduced scale, illustrating a belt for driving the grinding members of the device.

Corresponding parts in the several figures are indicated by like characters of reference.

The improved device which constitutes this invention is composed of two side members 1 2, which are pivotally connected by means of a bolt 3 at or near their lower ends, said bolt extending transversely through the two side members. The latter are provided at their upper ends with brackets 4 and 5, which are vertically adjustable by means of bolts 6, extending through slots 7 in the said brackets. Each of the brackets is provided with a laterally-extending guard 8, and each of said brackets is furthermore provided with a slidably-supported box 7^a, adjustable by means of set-screws 7^b, extending through a flange 8^a at the outer edge of each bracket. The slidable boxes 7^a afford each bearings for a shaft 9, carrying at its front end an emery-wheel or grinding-disk 10 of suitable dimensions, said wheels or disks being confined by the guard members 8, as clearly shown in the drawings. The shaft 9, supported by the side member 1, carries at its rear end a pulley 11, and a similar pulley 12 is carried by the shaft 9, supported by the side member 2. The bracket 5 of the side member 2 is moreover provided with a laterally-extending slide member 13, constituting a rest whereby the device may be supported upon the teeth of a saw, as will appear by reference to Figs. 1 and 2 of the drawings. Pivottally connected with the upper end of the side member 1 is a T-headed bolt 14, constituting a latch member which is adapted to engage a notch 15 in the opposite member 2, thus enabling the side members of the device to be connected and tightened together.

One of the side members of the device, in the present instance the one designated 1, is provided at its lower end with a bracket 17, supporting a shaft 18, upon which two idlers 19 and 20 are journaled. Said shaft also supports a pivoted bar 21, carrying at its free end an idler 22, which constitutes a belt-tightener, said idler 22 being preferably weighted in order to impinge with considerable force upon the driving-belt. The latter, which is designated 23, is guided over a driven pulley 24, thence under the idler 20, thence over the pulley 11 upon the shaft at the upper end of the member 1, thence under the idler 19, thence over the pulley 12 upon the shaft at the upper end of the said member 2, and back to the driven pulley 24. The

belt-tightening pulley 22 rests upon the upper side of the upper lead of the driving-belt.

The driven pulley 24 is preferably connected with the frame of a saw-grinding machine of well-known construction, and the device which constitutes this invention is likewise to be connected with said machine. In the drawings a portion of the frame of such machine has been shown at F; but no limitation is made as to the method of connecting the present invention with said frame or to any particular method of driving the shafts 9 9.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of this invention will be readily understood by those skilled in the art to which it appertains. The construction is simple, and the device may be effectually operated without having recourse to skilled labor.

The device may be mounted in position for operation upon the frame F of a saw-swaging machine by clamping upon said frame a slotted frame F², in which a guide member G, which is bolted to or otherwise suitably connected with the side member 2 of the device, is vertically slidable. Other means for mounting the device in position for operation may, however, be used without departing from the invention. The rest or slide member 13, the office of which is to prevent upward displacement of the saw during operation, is caused to rest upon the points of the saw-teeth, and said rest is provided with vertical slots 13' for the passage of adjusting-bolts 14', so that proper vertical adjustment may be had at this point. In mounting the device in position for operation upon the saw the members 1 and 2 are swung apart, as will be seen in Fig. 4 of the drawings. After properly adjusting the rest 13 the member 1 is restored to the position shown in Fig. 1 and the members 1 and 2 are connected by means of the T-headed bolt 14.

It will be seen that the emery-wheels operate upon the sides of the teeth which have been previously swaged. As the grinding-faces of the emery-wheels wear away the shaft-supporting boxes 7 may be set up against the sides of the saw and the supporting-brackets 4 and 5 may be moved upwardly, as will be readily understood. On the other hand, when necessary or desirable owing to any peculiar conformation of the saw-teeth,

the supporting means for the emery-wheels or grinding-disks may be moved outwardly and downwardly to any desired extent.

Having thus described the invention, what is claimed is—

1. In a device of the class described, two side members mutually connected by a transverse pivot, shafts supported for rotation near the upper ends of said side members, grinding-disks upon said shafts, means for driving the latter, and means for connecting the upper ends of the side members.

2. In a device for side-dressing saws, a pair of side members connected by a transverse pivot, vertically-adjustable brackets near the upper ends of said side members, laterally-adjustable boxes supported upon said brackets, shafts journaled in the boxes, grinding-disks upon the shafts, driving-pulleys upon said shafts, idlers supported near the lower end of one of the side members, and a driving-belt.

3. A device for side-dressing saws, including a pair of pivotally-connected side members each supporting a driven grinding-disk, and a member connected with said device and adapted to rest upon the points of the saw-teeth to be operated upon to prevent upward displacement of the saw during operation.

4. A device of the class described including pivotally-connected side members adapted to engage the sides of a saw-blade, driven shafts supported adjustably by said side members, grinding-disks supported by said driven shafts, a saw-tooth-engaging device connected with one of the side members, to prevent upward displacement of the saw during operation, and latch means for connecting together the free ends of said side members.

5. A device for side-dressing the teeth of band-saws including a pair of grinding-disks supported to engage the sides of the saw-teeth, and a member engaging the points of the teeth to prevent upward displacement of the saw during operation.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

EMERIE L. BISHOP.

Witnesses:

EDW. F. SUSTMAN,
H. G. LAUN.