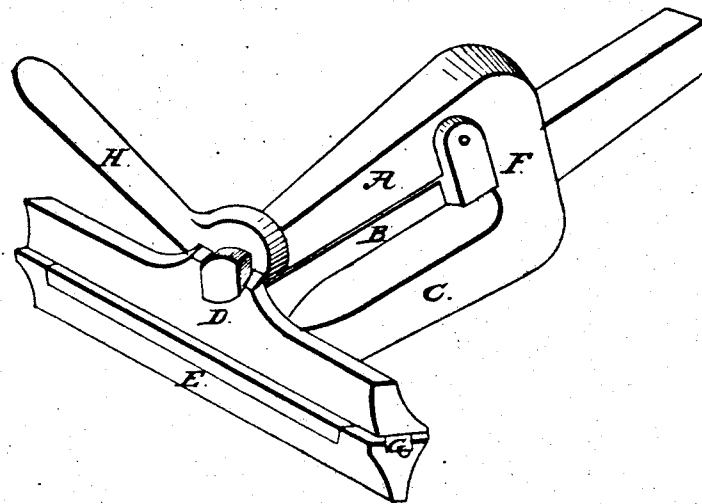


W. Hinds.

Saw-Set.

N^o 8,185.

Patented Jul. 1, 1851.



UNITED STATES PATENT OFFICE.

WILLIAM HINDS, OF COOPERSTOWN, NEW YORK.

WISE SAW-SET.

Specification of Letters Patent No. 8,185, dated July 1, 1851.

To all whom it may concern:

Be it known that I, WILLIAM HINDS, of Otsego, in the county of Otsego and State of New York, have invented a new and useful
5 Machine for Setting and Filing Saws, which I denominate the "Vise Saw-Set;" and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, refer-
10 ence being had to the annexed drawing, making a part of this specification, in which the drawing is a perspective view of the said saw-set.

A, B, and C represent the arms; D and E, the jaws; F, the cross bar and stake; G, the bevel, and H the lever.

The vise, or main body of the set, is composed of two pieces of cast iron, and when put together in the machine for use it is
20 very similar in form to that of a common blacksmith's vise. The only point or part wherein it differs very materially from the blacksmith's vise is that it has two arms on one side of it (A and B, of the drawing).
25 The arm (A) is fast and permanent in its place, while that of (B) is fast at the bottom only and movable at top, and the grip or compression of the vise is effected by means of an eccentric lever that turns on
30 the upper end of the arm (A,) and operates directly against the jaw (D) to force that jaw against the other. One piece of the cast iron that goes to make the body of the vise embodies in one entire piece, the jaw (E),
35 the two arms (C and A) and the cross bar and stake at the bottom marked (F) on the drawing. The other piece of cast iron embodies the jaw marked (D) and the arm (B) which has ears that pass by on each side of
40 the arm (A). Through these ears and the bottom of the arm (A) is a bolt inserted that may be readily taken out to adjust the bevel in the jaw in its several positions for setting as may be seen by the drawing. The
45 most convenient length for the jaws would be about nine and one-half inches, in order to set or file the largest hand saw at three moves in the vise, and the arms should be of sufficient length to receive the widest hand
50 saw. At each end on opposite corners and in the inside of the jaw (E) are knobs to hold the bevel in its place in the jaw. Also on the inside of the arm (C) and exactly where it connects with the jaw (E) is a knob

to prevent the bevel from springing back 55 while setting. The inside faces of the jaws should be made with a slight curve or circle, so that the ends of the jaws will come in contact first. The curves in the jaws may be equal to what the jaws will spring in pro- 60 ducing the necessary power of compression. The arm (B) should be made thin and light, so that the whole face of the jaw embodied with it, and the bevel may readily be brought into full contact with the saw blade by the 65 force of the lever. On the outside of the jaw (D) equidistant from the ends of the jaw is a notch or gap that circles nearly around the top of the arm (A) to hold the jaws in the right position with each other 70 (all of which may be seen from the drawing). The bevel (G) or setting bar should be made of steel of the same length of the jaws of the vise with four different inclined planes or beveled squares on the edges there- 75 of, so as to set saws four different widths. The planes or beveled squares should be made with a slight round, or curve on the inside edges to give the saw teeth a longer bend and render them less liable to break. 80 The opposite corners at each end of the bevel are cut out to make a tenon to fit in between the knobs mentioned on one jaw of the vise. The bevel should be so adjusted in the vise that the front side of the jaw (D) will come 85 exactly over the inside edges of the inclined planes or beveled squares. At the bottom of the vise is a stake or bar projecting downward for the purpose of being placed in a hole in a bench or other place to hold the 90 vise in an upright position to file in. The eccentric lever (H) is so common and so clearly shown in the drawing as to need no description.

To set saws in this set, care must be taken 95 to let no more than the length of the teeth to any saws extend outside of the jaw (D), nor in any case to let the points of the teeth extend over the edges of the bevel, otherwise in either case the teeth may be broken. The 100 saws are set with a punch and hammer, and filed as in any ordinary vise.

What constitutes the advantages in this kind of vise which are not to be found combined in ordinary vises to be used in setting 105 or filing saws, or in any kind of vise heretofore used for that purpose, are: first, that it has no cross screw or other obstructing de-

vices between the arms, thereby rendering any longer length of arms than will be equal to the width of the saw blade unnecessary, consequently making the construction
5 of the vise cheaper, lighter, smaller, and more compact and portable; second, another advantage is secured by the use of the light arm (B) which readily yields to the power of the lever and suffers the full face of the
10 jaw (D) and bevel to be brought into full contact with the saw blade, thereby producing a sufficient amount of friction to hold the polished blades firm in the vise; third, a further advantage arises from the ar-
15 rangement of the notch in the jaw (D) which fits close to the arm (A) and serves to keep the jaws in perfect correspondence with each other.

What I claim as my invention and wish to secure by Letters Patent is, 20

Constructing a vise for the purpose of compressing saws to be set or filed in the following manner, namely: with only one supporting arm to each jaw, hinged at their lower extremities and having an extra arm 25 on one side of and parallel or nearly so to said supporting arms, to the upper extremity of which is attached an eccentric lever or its mechanical equivalent for compressing the two jaws together, constructed 30 substantially as herein described.

WILLIAM HINDS.

Witnesses:

G. W. ERNST,
HYDE CLARK.