

(No Model.)

J. E. WHITING.

SAW SET.

No. 392,388.

Patented Nov. 6, 1888.

Fig. 1.

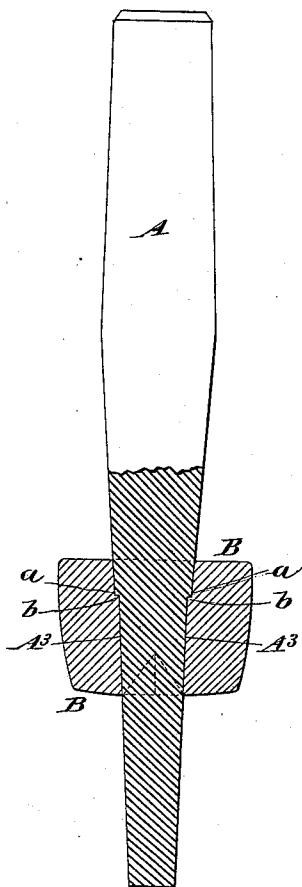


Fig. 2.

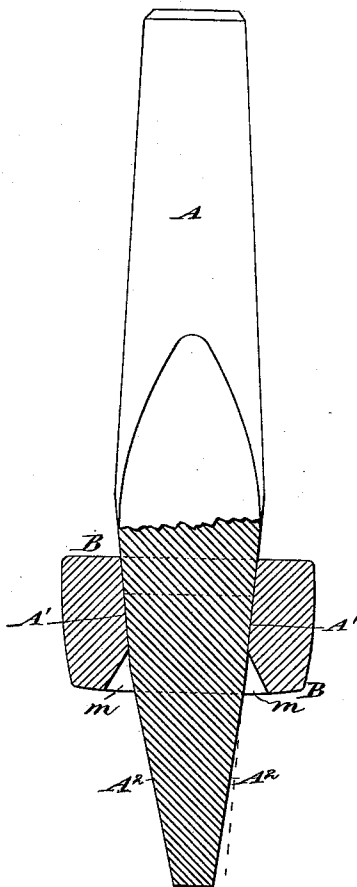
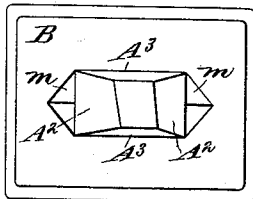


Fig. 3.



Witnesses:
Charles R. Searle.
H. J. Johnston.

Inventor:
Joseph E. Whiting,
by his attorney
My Thomas D. New. Boston.

UNITED STATES PATENT OFFICE.

JOSEPH E. WHITING, OF MONTROSE, PENNSYLVANIA.

SAW-SET.

SPECIFICATION forming part of Letters Patent No. 392,388, dated November 6, 1888.

Application filed August 2, 1888. Serial No. 281,744. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH E. WHITING, of Montrose, Susquehanna county, in the State of Pennsylvania, have invented a certain new and useful Improvement in Saw-Sets, of which the following is a specification.

I have in Letters Patent issued to me July 13, 1875, No. 165,464, described a saw-set in two parts, which has proved highly efficient and useful. The present invention involves the same features, with an improvement by which I avoid certain serious objections to the instrument.

I have discovered that it is practicable without sacrificing the facility and certainty of applying together, holding, and separating at will to have a shoulder on one or more sides of the main body, preferably both, the sides which were heretofore plane, and a corresponding shoulder or corresponding shoulders on the adjacent faces of the detachable block or square ring. The bearing on the shoulders is attuned to the bearing on the beveled faces very perfectly without requiring labor or skill. The bearing afforded by the shoulder relieves the block from undue strain liable to be given by a strong and careless person by driving the body too hard and too far into the block. This relief from strain allows the use of a thinner block. The great thickness diametrically heretofore required in the block has forbidden the use of my set on any but saws having teeth quite wide apart. This invention, by reducing the amount of metal necessary to give strength, allows the set to be used on finer saws. I have also, to further render this feature available, made the body of oblong instead of square section. My standard set with this improvement is less than one-fourth of one inch across the thinnest way. The other way, at right angles to that measurement, it is more than half an inch. The lower face of the block is five-eighths of an inch ($\frac{5}{8}$) by seven-eighths of an inch, ($\frac{7}{8}$).

The following is a description of what I consider the best means of carrying out the invention.

The accompanying drawings form a part of this specification.

Figure 1 is an elevation, partly in longitudinal section. Fig. 2 is a corresponding figure, the view in elevation and also the section be-

ing at right angles to that in Fig. 1; and Fig. 3 is a plan view, seen from below.

Similar letters of reference indicate like parts in all the figures where they occur.

A is the handle or main body, and A' and A² the variant beveled faces thereon. The faces A' of the least bevel apply within the block. They may be so slightly beveled as to be apparently parallel, the shoulders insuring against being driven so hard into the block as to endanger its splitting it. The shoulders might possibly be made on these faces A', taking care to have the shoulders on the interior of the block correspond in position; but I prefer to produce those beveled faces as perfectly as possible without interruption, and produce the shoulders on the remaining two faces A². A³, one shoulder on each face A². The shoulders are marked *a*.

B is the block. It may have any desired exterior. I prefer a nearly plain rectangular form; but the interior is carefully fitted to match to the beveled faces A' A' of the body, and also to match exactly to the shoulders *a*.

This last is effected by producing the corresponding inner faces of the block with offsets *b b*, so placed as to bear against the shoulders *a* at the same moment that the inclined interior of the block B comes to a tight but not too severe bearing on the inclined faces A'. The instrument can be used successfully with one shoulder *a* on one side; but I prefer such a shoulder on each of the parallel sides, as shown.

The exact adjustment of the positions of the shoulders to bear at the right time and with the right degree of force to relieve the block from being too strongly wedged open by the slightly-inclined faces A', and yet to avoid looseness, is attained by a very simple method, the body having been first carefully formed just right. The block is made with its inner faces approximately right, and then is heated, and the cold body is driven into it tightly so far as to force the shoulders *a a* down to and slightly into the block. This operation forms the shoulders *b b* in the right positions, and all the bearings are certain to be in harmony.

The parts may be separated and hardened separately; but I prefer to keep them together during the whole heating and hardening process.

The recesses *m* in the block receive and shape the points of the teeth as the instrument is driven thereon. One side is intentionally more inclined than the other.

5 I claim as my invention—

In a saw-set having a body, *A*, with beveled faces *A'* and *A''*, and a block, *B*, matching thereon, with recesses *m*, as shown, to receive and set the teeth, a shoulder, *a*, on the body
10 and corresponding shoulder, *b*, on the interior of the ring, adjusted to match when the bev-

eled faces are fully driven home in the block, as herein specified.

In testimony whereof I have hereunto set my hand, at Montrose, Pennsylvania, this 24th 15 day of July, 1888, in the presence of two subscribing witnesses.

J. E. WHITING.

Witnesses:

AMOS NICHOLS,

WILL H. WARNER.