

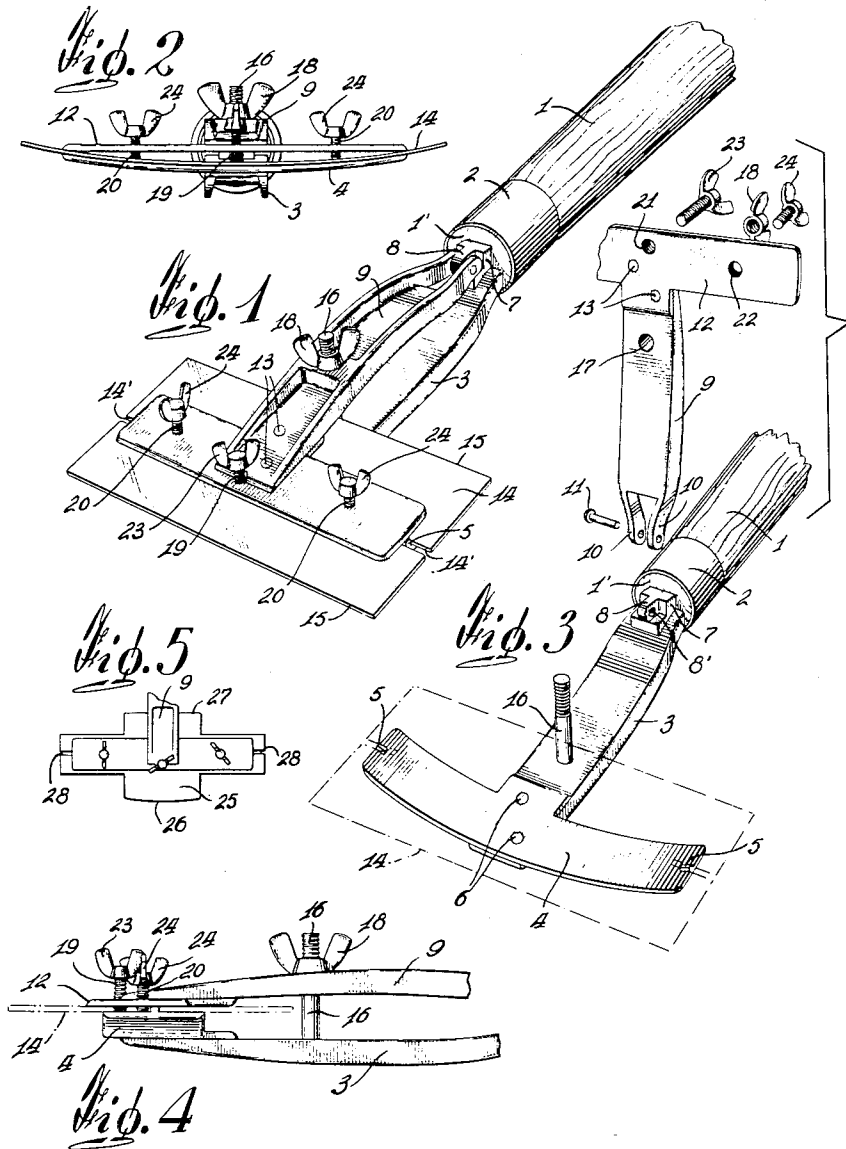
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SCRAPER

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SCRAPER

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The present invention relates to a scraper of the type in which the blade is removably held by a clamping device which is more particularly adapted for scraping paint, varnish and the like surface coatings.

The general object of the present invention is the provision of a scraper of the character described, having means for varying the curvature of the blade between a flat condition and a maximum curved condition to thereby vary the scraping depth of the blade according to the desire of the operator.

Another important object of the present invention is the provision of a scraper of the character described in which the blade is securely held by the clamping device in any of its curved positions.

Still another important object of the present invention is the provision of a scraping device of the character described which is of strong and relatively simple construction and which is provided with means for quickly removing the blade for replacement purposes.

Yet another important object of the present invention is the provision of a scraper in which the blade may be reversed so that a fresh cutting edge may be used thereby increasing the useful life of said blade.

Another important object of the present invention is the provision in a scraper of the character described of a modified scraping blade having a shorter scraping edge to thereby permit scraping of thick coatings.

The foregoing and other important objects of the present invention will become more apparent during the following disclosure and by referring to the drawings in which:

Figure 1 is a perspective view of the scraper;

Figure 2 is an end view of the same;

Figure 3 is a partial exploded perspective view of the scraper;

Figure 4 is a side elevation of the same; and

Figure 5 is a diagrammatic plan view showing a modified blade.

Referring now more particularly to the drawings in which like reference characters indicate like elements throughout, the reference numeral 1 indicates a wooden handle having sufficient length so that the scraper may be gripped by both hands for efficient operation.

The end 1' of the handle 1 is provided with a ferrule 2 and a clamping member 3 is inserted within said end 1' of said handle so as to be rigid therewith. The clamping member 3 consists of a metal bar extending in alignment with the handle 1 and provided at its outer free end with a longitudinally curved transverse jaw 4 provided with two spurs 5 at its ends. The jaw 4 is made of a rigid metal and its curvature is permanent. It is secured to the clamping member 3 by means of rivets 6.

A block 7 is integral with the clamping member 3 adjacent the end 1' of the handle 1. The block 7 forms an ear 8 having a hole 8'. A second clamping member 9, which consists of a flat bar, is provided at its inner end with spaced perforated lugs 10 adapted to receive therebetween the ear 8 of the block 7. A hinge pin 11 passes

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through hole 8' and the apertures of the lugs 10 to pivotally connect the two clamping members 3 and 9 together. A second jaw member 12 is rigidly secured to the outer end of the clamping member 9 by means of rivets 13.

The jaw member 12 is rigid and has a flat straight inner face. When the second clamping member 9 is pivoted in closed position against the first clamping member 3, the jaws 4 and 12 contact each other only at their outer ends due to the longitudinal curvature of the first jaw member 4 to thereby leave a free face between the two jaws 4 and 12. The two jaws 4 and 12 are adapted to hold therebetween a scraping blade 14 which has preferably a rectangular shape, is made of tempered steel and provides two longitudinal cutting edges 15. The blade 14 is provided at its side edges with central slits 14' adapted to receive the spurs 5 projecting from the inner face of the jaw 4. Thus the spurs 5 prevent displacement of the blade relative to the jaw members 4 and 12.

The clamping members 3 and 9 are pressed and retained in closed position by means of a threaded bolt 16 secured to the clamping member 3 and adapted to pass through a registering hole 17 made in the clamping member 9 and adapted to threadedly receive a wing nut 18.

As the blade 14 is made of resilient steel and is normally flat, it contacts the inner face of the jaw 12 when held between the two jaws 4 and 12. Thus said blade can be longitudinally curved to any desired degree to a maximum in which said blade contacts the inner face of the curved jaw 4, by means of bolts 19 and 20 which engage threaded holes 21 and 22 made in the second jaw 12 and adapted to abut against the face of the blade 14. Suitable adjustment of the engagement of the bolts 19 and 20 by rotation of their wing heads 23 and 24 respectively, will curve the blade 14 to any desired value up to the above defined maximum. It will be understood that when the blade 14 is in its straight flat condition, it is able to scrape over a maximum width but a minimum depth, whereas when the blade is in its maximum curved condition, it can scrape a maximum depth but over a minimum width. In any of the curved or flat positions of the blade, the same is retained against displacement between the two jaw members by means of the spurs 5 which engage the slits 14' of the blade 14; curving the blade results in relative displacement of the spurs within said slits.

In order to remove the blade and to reverse its position so that a fresh cutting edge may be brought into use or for replacement of said blade it is only necessary to unscrew the wing nut 18 so as to release the clamping jaws 4 and 12 from engagement with the blade.

Instead of having a rectangular shaped blade 14, another type of blade may be used, such as the blade 25 shown in Figure 5. The scraping edge 26 of said blade is much shorter and is preferably slightly convex so that said blade will be able to scrape at a greater depth than the blade 14 of the first embodiment. The blade 25 may also have a straight cutting edge 27. The blade 25 is held between the jaws 4 and 12 in the same manner as the blade 14 being provided with end slits 28 engageable with the spurs 5 of the jaw 4.

While preferred embodiments according to the present invention have been illustrated and described, it is understood that various modifications may be resorted to without departing from the spirit and scope of the appended claims.

I claim:

1. In a scraper, a blade clamping mechanism comprising a pair of clamping members consisting of a first and a second member, said first member being pivotally mounted on said second member, said first member having a clamping jaw with a substantially straight flat inner face, said second member having a clamping jaw with a

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longitudinally concave inner face, screw means to press said clamping jaws one against the other to retain a blade therebetween and such that the ends of said curved jaw will contact said blade, interlocking means between said blade and the ends of said curved jaw to prevent displacement of said blade relative to said jaws, and adjusting screw means acting on said blade for adjustably spacing from said straight clamping jaw the portion of said blade between the ends of said clamping jaws to thereby adjust the curvature of said blade between said clamping jaws.

2. A scraper comprising a handle, a first T-shaped member secured to said handle, a second T-shaped member pivotally mounted on said first T-shaped member, the cross leg of said second T-shaped member being longitudinally straight, the cross leg of said first T-shaped member being longitudinally curved to provide a concave inner face, a screw to press said T-shaped members one against the other to retain a blade between their respective cross legs, and adjusting screw means acting on said blade for adjusting the curvature of said blade between said cross legs.

3. A scraper comprising a handle, a first rigid T-shaped member secured to said handle with its cross leg extending at substantially right angles to said handle, a second rigid T-shaped member pivotally mounted on first member adjacent the end of said handle and pivotable to a position in which its cross leg is in registering relationship with the cross leg of said first T-shaped member, the cross

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leg of said second T-shaped member having a flat and longitudinally straight inner face, the cross leg of the said first T-shaped member having a longitudinally curved inner face, spurs projecting from the ends of the cross leg of said first T-shaped member, a scraping blade adapted to be held between said two cross legs and having slits at the ends thereof to receive said spurs, screw means to press said cross legs one against the other to retain said blade therebetween, and adjusting screw means threadedly engaging the cross leg of said second T-shaped member and adapted to act on said blade for adjusting its curvature between said cross legs.

4. A scraper as claimed in claim 3, wherein said blade has a rectangular shape and its two longitudinal sides provide cutting edges.

5. A scraper as claimed in claim 3, wherein said blade consists in an elongated strip provided with slit outer ends engageable with said spurs and having projections depending from the middle of its longitudinal sides to provide two scraping edges.

6. A scraper as claimed in claim 3, wherein one of said last named scraping edges is convex.

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