

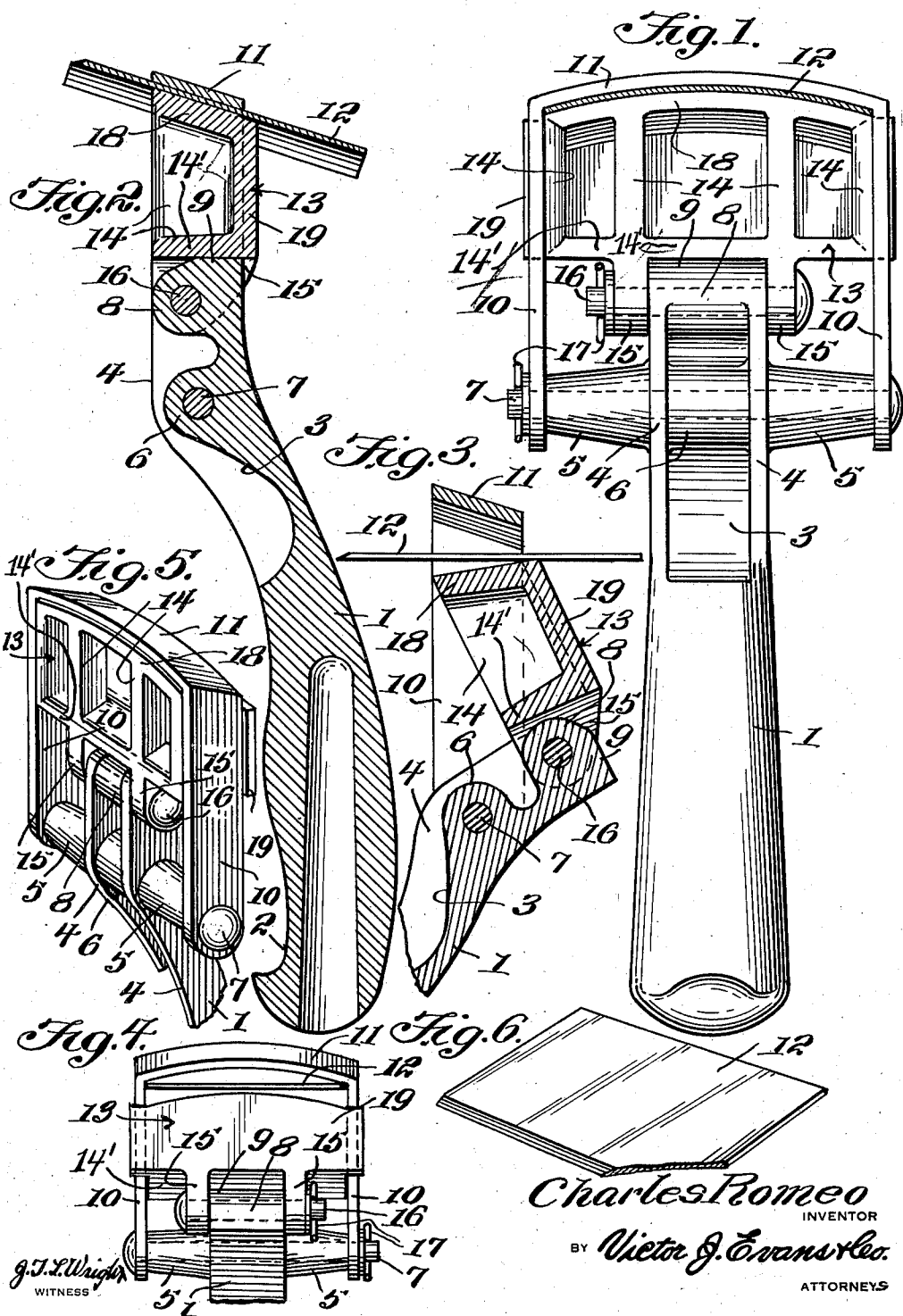
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SCRAPER

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SCRAPER

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4 Claims. (Cl. 30—171)

This invention relates to scrapers and its general object is to provide a scraper of the removable blade type, that includes blade clamping means having a handle hingedly secured thereto and cooperating therewith for actuating the clamping means into and out of blade clamping or wedging position.

A further object of the invention is to provide a scraper having a bendable resilient normally straight blade and clamping means therefor which includes curved blade receiving and engaging jaws for curving the blade when clamped between the same, consequently the blade sets up a resilient action to cooperate with the clamping means in holding the blade rigid when in clamped position.

Another object of the invention is to provide a scraper that has all of its parts with the exception of the blade connected together in a manner to prevent casual separation or misplacement thereof from each other.

A still further object of the invention is to provide a scraper of the character set forth, that is simple in construction, inexpensive to manufacture, easy to operate in applying and removing the blade, and is extremely efficient in use, operation and service.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawing and specifically pointed out in the appended claims.

In describing the invention in detail, reference will be had to the accompanying drawing wherein like characters denote like or corresponding parts throughout the several views, and in which:

Figure 1 is a bottom plan view of the scraper which forms the subject matter of the present invention, with the blade in section.

Figure 2 is a longitudinal sectional view taken therethrough.

Figure 3 is a fragmentary sectional view showing the position of the parts with the clamping jaws in open position, and a blade inserted between the same.

Figure 4 is a fragmentary top plan view.

Figure 5 is a perspective view of the scraper head with the handle broken away.

Figure 6 is a perspective view of the blade for the scraper.

Referring to the drawing in detail, the reference numeral 1 indicates the handle, which as shown in Figure 2 is provided with a bore extending longitudinally therein, so as to lighten

the weight thereof, and the handle is longitudinally tapered, with a recess 2 arranged in the underside thereof to receive the fingers of the user and thereby provide a convenient and positive gripping surface for the hand of the user.

Adjacent to the juncture of the handle with the head of the scraper it will be noted from Figure 1, that the handle is channeled as at 3 to provide spaced parallel walls 4 and extending outwardly from diametrically opposite sides of the walls 4 are tapered projections 5 having a central bore extending therethrough as well as through a collar portion 6 that bridges the walls 4, for the purpose of receiving a pin 7.

The handle terminates at its inner end in a bearing collar 8 that has formed thereon a flat outer face providing an abutment 9, for a purpose which will be later described.

The head of my scraper includes a substantially U-shaped frame having the arms 10 thereof pivotally mounted on the pin 7 and engaging the outer ends of the tapered projections 5, as best shown in Figure 1, while the bight portion of the frame is outwardly curved from end to end and provides the outer jaw 11 for a blade 12.

The head likewise includes a body member 13 of rectangular configuration and which is hollow as shown, so as to be in the form of a shell, but is reinforced by webs 14 bridging the hollow portion. Extending inwardly from the rear wall 14' of the body member 13 are apertured lugs 15 spaced apart to receive the bearing collar 8 between the same, and extending through the lugs 15 and the bearing collar 8 is a pivot pin 16, for pivotally securing the body to the handle. While the pins 7 and 16 may be held against removal or displacement by any well known means, it will be noted that cotter pins 17 are shown for that purpose and which bear against washers.

The outer wall of the body 13 is curved to provide the inner jaw 18 for the blade, and the body is of a width to fit between the arms 10 for slidable movement, with an upper wall 19 for the body having its ends extending beyond the arms 10 for slidable movement thereon, for cooperation with the connection of the body with the handle to hold the body between the arms at all times.

The blade is preferably of the straight resilient or flexible type, so that when it is disposed between the jaws 11 and 18 and the handle moved from the position of Figure 3 to that of Figure 2, the blade will not only be clamped between the jaws, but due to the flexibility of the blade it will naturally set up a resilient action against the

jaws for cooperation with the cam element 9 in rigidly holding the blade against casual displacement or removal.

The jaws 11 and 18 are not only curved, as and for the purpose specified, but are transversely inclined outwardly or from their upper to their lower edges, so that the blade is inclined accordingly as best shown in Figure 2.

It might be further stated that a blade that is normally straight as shown in Figure 6, can be sharpened with less effort than a curved blade, and has a tendency to retain its edge for a longer period of time.

In applying or removing a blade between the jaws 11 and 18, it will be obvious that the handle is moved downwardly on the pivot pins 7 and 16 as indicated in Figure 3, and such movement not only draws the jaw 18 away from the jaw 11, but likewise moves the jaw 11 outwardly, due to the particular pivotal association of the frame and body with respect to the handle. After the blade has been inserted between the jaws, the handle is moved to the position of Figure 2, which not only disposes the jaws into clamping association with respect to the blade, but causes the abutment 9 to contact the rear wall 14' of the body to cooperate with the resiliency of the blade in holding the jaws in clamped association therewith.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What I claim is:

1. A scraper comprising a blade, a handle, a head including a substantially U-shaped frame, a jaw provided by the bight portion of the frame, a body mounted for movement in the frame, a jaw included in the body for fitting association and cooperation with the inner face of the first jaw for clamping the blade between said jaws, and means for pivotally connecting the frame and body to the handle and arranged with respect to the latter whereby the jaws are moved toward and away from each other for disposal into and out of blade clamping positions upon swinging movement of the handle on the pivots.

2. A scraper comprising a blade, a handle shaped to provide a hand gripping portion, a head including a substantially U-shaped frame having a bight portion shaped to provide a jaw

curved longitudinally and outwardly inclined with respect to the frame, a body mounted for slidable movement in the frame and having an outer wall shaped to provide a jaw for fitting association and cooperation with the first jaw to clamp the blade between the jaws, and means for pivotally connecting the frame and body to the handle and arranged with respect to the latter whereby the jaws are moved toward and away from each other for disposal into and out of blade clamping positions upon swinging movement of the handle on the pivots.

3. A scraper comprising a blade, a handle shaped to provide a hand gripping portion, opposed elongated projections extending laterally from adjacent the inner end of the handle, a head including a substantially U-shaped frame having the arms thereof pivotally connected to the outer ends of the projections and the bight portion providing a jaw, a body pivotally connected to the inner end of the handle and having a curved portion providing a jaw for fitting association and cooperation with the first mentioned jaw for clamping the blade between said jaws, and the pivotal connections of the frame and body with respect to the handle being arranged whereby the jaws are moved toward and away from each other for disposal into and out of blade clamping positions upon swinging movement of the handle on the pivots.

4. A scraper comprising a straight flexible blade, a handle including an outer gripping portion, opposed projections extending laterally from adjacent the inner end of the handle, a head including a substantially U-shaped frame having the arms thereof pivotally connected to the outer ends of the projections and having a curved outwardly inclined bight portion providing a jaw, a hollow body mounted for slidable movement between the arms of a frame and having a curved outwardly inclined outer wall providing a jaw fitting and cooperating with the first mentioned jaw for clamping the blade between the jaws, lugs formed on the body and being pivotally connected to the inner end of the handle, the pivotal connections of the frame and body with respect to the handle being arranged whereby the jaws are moved toward and away from each other for disposal into and out of blade clamping positions upon swinging movement of the handle on the pivots, and abutment means on the handle for disposal in binding engagement with the body for locking the jaws in blade clamping position.

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