Oct. 7, 1930. W. POTTER 1,777,677

SCRAPER

Filed April 14, 1930

Fig. 1

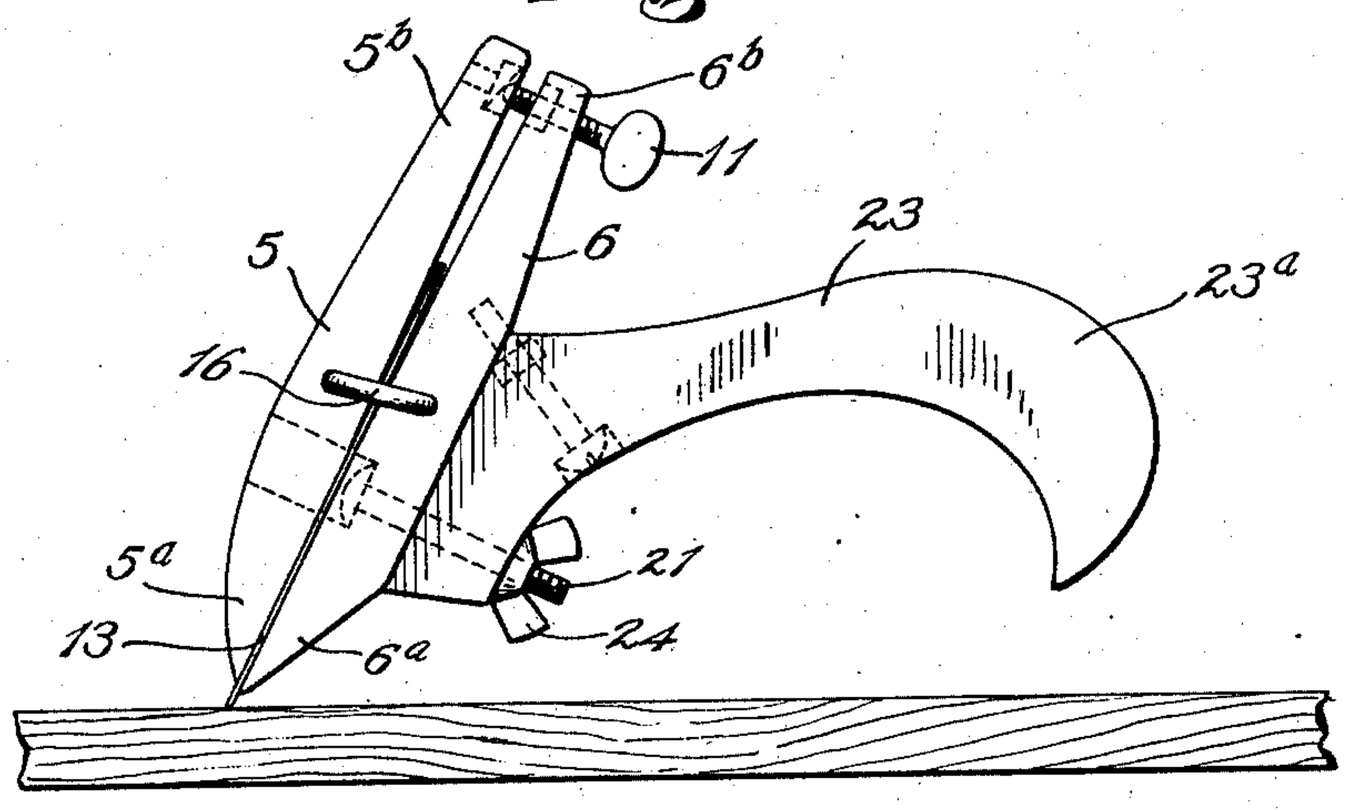


Fig. 2

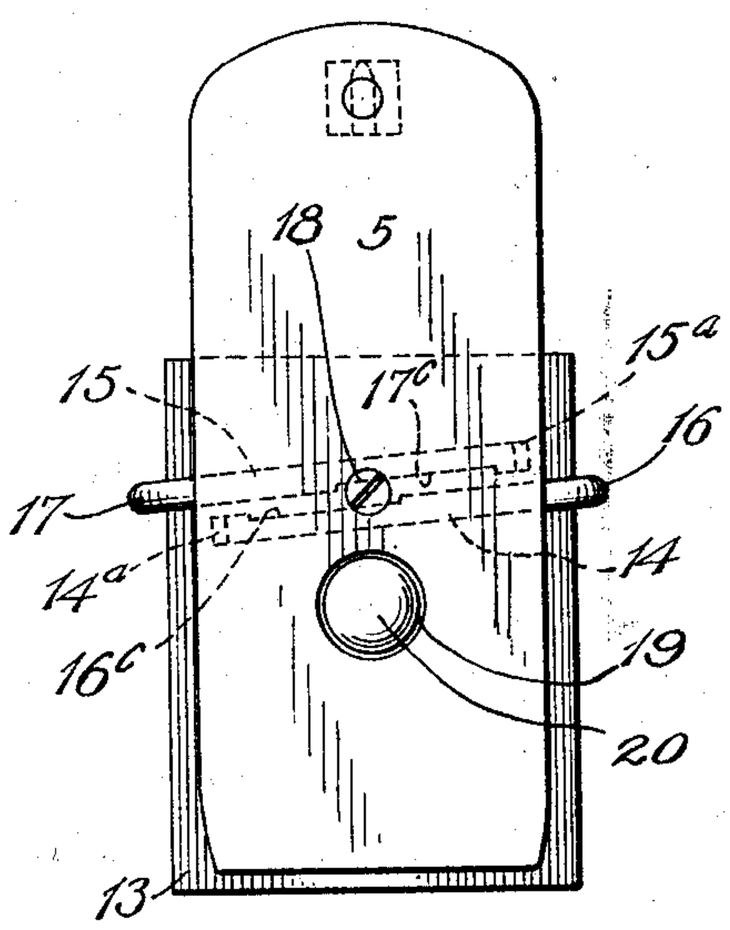
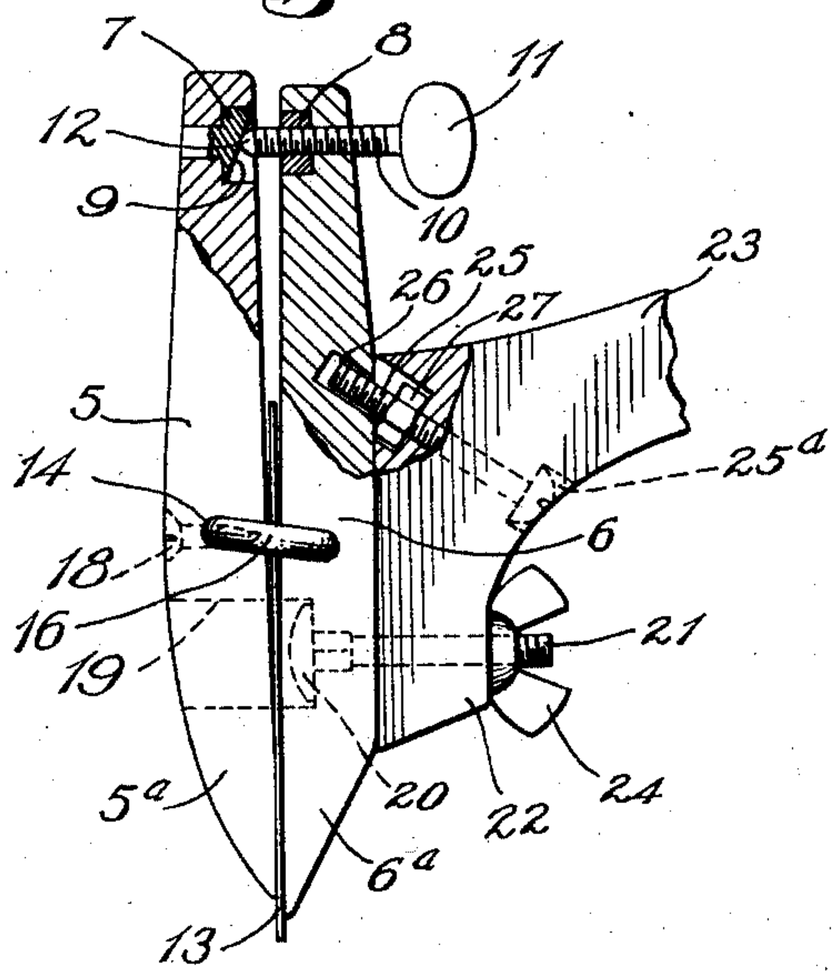


Fig. 3



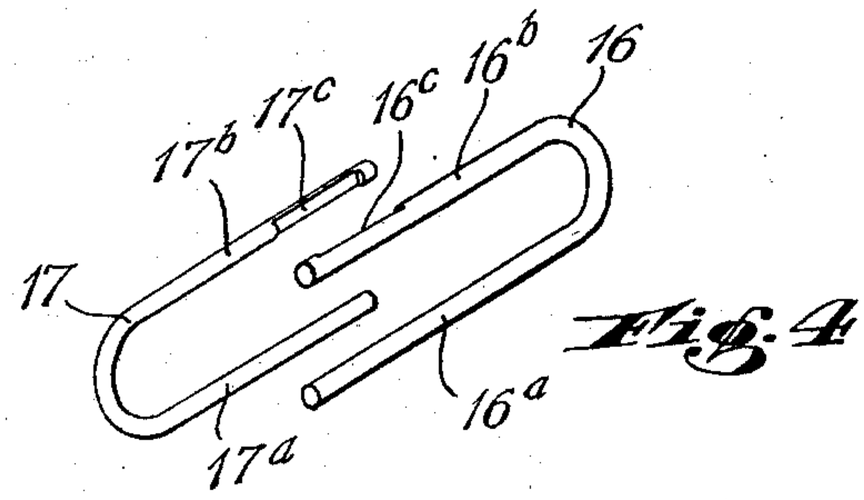


Fig. 4

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UNITED STATES PATENT OFFICE

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SCRAPER

Application filed April 14, 1930. Serial No. 444,030.

This invention relates to scrapers and particularly to the provision of a tool for supporting scraper blades to facilitate the movement thereof over a surface to be scraped; and the object of the invention is to provide a tool of the class specified comprising two jaw members with means disposed centrally thereof for coupling the same together and for retaining a blade in alinement within the jaws; a further object being to provide means at the free end portion of the tool for controlling the movement of the jaws toward and from each other in clamping a blade therebetween; a further object being to provide a handle member detachably coupled with one of said jaws and disposed angularly with reference thereto to facilitate the movement of the tool with reference to a workpiece; and with these and other objects in view, the invention consists in a tool of the class and for the purpose specified which is simple in construction, efficient in use and which is constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which:

Fig. 1 is a side view of the tool illustrating the position assumed thereby when in use.

Fig. 2 is a face view of the tool.

Fig. 3 is a view similar to Fig. 1 showing only a part of the construction and with parts in section; and,

Fig. 4 is a perspective detail view of two parts of the tool detached.

In carrying my invention into effect, I provide two substantially similar jaw members 5 and 6, the inner adjacent surfaces of which are relatively flat and parallel at the jaw ends 5^a—6^a and flared slightly at the free ends 5^b—6^b. Countersunk in the last named ends of said jaw members are two blocks 7 and 8, the block 7 having a beveled face 9, and the block 8 being threaded to receive a clamp screw 10 having a winged head 11 at its outer end and the inner end 12 being conical in form or rounded to ride upon the beveled face 9 of the block 7 so as to maintain the jaw ends 5^a—6^a in substantially parallel relation in the operation of clamping a scraper blade 13 within and between the jaw members.

The jaw member 5 has two angularly disposed bores 14 and 15 arranged transversely thereof and in spaced parallel relation as clearly seen in Fig. 2 of the drawing, the bore 14 being controlled from the right hand side of the member 5 and terminating short of the other side as indicated at 14^a, whereas the bore 15 is controlled from the left hand side and terminates short of the right hand side as indicated at 15^a and similar bores are formed in the jaw member 6.

U-shaped coupling and spacing pins 16 and 17 are employed for coupling the members 5 and 6 together and also to cooperate with the side edges of the scraper tool 13 to properly align the same in and between the members 5 and 6. The lower ends 16^a—17^a of said pins operate in the bores 14—15 of the member 6 whereas the other ends 16^b—17^b operate in the bores 14—15 of the member 5. The adjacent surfaces at the free ends of the ends 16^b—17^b are cut out to form keyways 16^c—17^c in connection with which a set screw 18 arranged in the part 5 is adapted to operate so as to retain the pins 16 and 17 in different positions of adjustment laterally with respect to the members 5 and 6. Said screw also prevents accidental displacement of said pins 16 and 17, it being understood however that by removing the screw 18 the pins 16 and 17 may be removed so as to separate the jaw members 5 and 6. The member 5 has a comparatively large aperture 19 arranged outwardly of the pins 16 and 17 through which the head 20 of a bolt 21 is free to pass, said head being countersunk in the inner face of the jaw member 6 and projecting through the surface thereof and adapted to be passed through an angular leg 22 on a handle member 23 and clamped to the jaw member 6 by a winged nut 24. The aperture 19 in the member 5 is not absolutely essential as the bolt 21 may be assembled before assembling the members 5 and 6 but by providing the aperture 19, the handle member may be at-

tached and detached without separating the jaw members 5 and 6.

Arranged in the handle member 23 is a key pin in the form of a bolt 25, the free end of which is adapted to enter an aperture 26 in the member 6 to prevent rotation of the handle member with respect to said member 6. At the same time, the bolt 25 serves to reinforce that part of the handle member through which it is passed, the head 25[a] of the bolt being preferably countersunk and a nut 27 is also countersunk in the inner face of the handle member as clearly seen in Fig. 3. The outer or free end of the handle member 23 has a hand grip 23[a] whereby the tool may be comfortably supported in the hand in such manner as to facilitate the movement of the tool over a surface to be scraped.

By providing a tool of the class described, it will be understood that scraper blades of any length up to the largest size may be arranged within and between the unobstructed surfaces of the jaw members 5 and 6, the screw 10 limiting the height of the blade, and it will be understood that the free cutting edge of the blade may project from the jaws 5[a]—6[a] to any desired extent depending upon the desires of the workman or the nature of the work being scraped. At the same time, the pins 16 and 17 may be adjusted to engage the side edges of blades of different widths so as to prevent any possible shifting of the blade within and between the jaw members 5 and 6.

In Fig. 2 of the drawing, it will be understood that the tool is shown supporting a relatively narrow blade, the pins 16 and 17 being capable of wide extension with respect to the members 5 and 6. It will also be understood that in clamping the blade 13 within and between the jaw members 5 and 6, said jaw members are capable of longitudinal movement with respect to each other in order to maintain the comparatively long bearing surfaces of the jaws 5[a]—6[a] in clamping engagement with the blade 13, and this operation is facilitated by virtue of the beveled face 9 on the block 7.

It will be understood that while I have shown certain details of construction for carrying my invention into effect, that I am not necessarily limited to these details and various changes therein and modifications thereof may be made within the scope of the appended claims without departing from the spirit of my invention or sacrificing its advantages.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A scraper comprising two jaw members, means arranged centrally of the opposite sides of said jaw members for coupling the same together, jaws at one end of said members, means at the other end thereof controlling the movement of said jaws relatively to each other to clamp a body within and between the same, and said first named means comprising coupling elements engaging both of said jaw members and movable laterally with respect thereto.

2. A scraper comprising two jaw members, means arranged centrally of the opposite sides of said jaw members for coupling the same together, jaws at one end of said members, means at the other end thereof controlling the movement of said jaws relatively to each other to clamp a body within and between the same, said first named means comprising yoke-shaped pins engaging both of said jaw members and adjustable laterally with respect thereto, and means in one of said jaw members engaging both of said pins for retaining the same in different positions of adjustment.

3. A scraper comprising two jaw members, means arranged centrally of the opposite sides of said jaw members for coupling the same together, jaws at one end of said members, means at the other end thereof controlling the movement of said jaws relatively to each other to clamp a body within and between the same, said first named means comprising yoke-shaped pins engaging both of said jaw members and adjustable laterally with respect thereto, and means in one of said jaw members engaging both of said pins for retaining the same in different positions of adjustment and for preventing accidental displacement of said pins therefrom.

4. A scraper comprising two jaw members, means arranged centrally of the opposite sides of said jaw members for coupling the same together, jaws at one end of said members, means at the other end thereof controlling the movement of said jaws relatively to each other to clamp a body within and between the same, said first named means comprising yoke-shaped pins engaging both of said jaw members and adjustable laterally with respect thereto, means in one of said jaw members engaging both of said pins for retaining the same in different positions of adjustment and for preventing accidental displacement of said pins therefrom, and a handle member detachably coupled with one of said jaw members.

5. A scraping tool of the class described comprising two substantially similar jaw members within and between which a scraper blade is adapted to be supported, the inner adjacent faces of said jaw members being unobstructed to receive plates of different lengths and widths, yoke-shaped pins for coupling said jaw members together, the crossheads of said pins being disposed at opposite sides of the jaw members, and said pins being movable laterally with respect to said jaw members to compensate for blades of different widths and to cooperate with

the side edges of the blade mounted in the tool.

6. A scraping tool of the class described comprising two substantially similar jaw members within and between which a scraper blade is adapted to be supported, the inner adjacent faces of said jaw members being unobstructed to receive plates of different lengths and widths, yoke-shaped elements for coupling said jaw members together, the crossheads of said elements being disposed at opposite sides of the jaw members, said elements being adjustable laterally with respect to said jaw members to compensate for blades of different widths and to cooperate with the side edges of the blade mounted in the tool, and means for retaining said elements in different positions of adjustment.

7. A scraping tool of the class described comprising two substantially similar jaw members within and between which a scraper blade is adapted to be supported, the inner adjacent faces of said jaw members being unobstructed to receive plates of different lengths and widths, yoke-shaped elements for coupling said jaw members together, the crossheads of said elements being disposed at opposite sides of the jaw members, said elements being adjustable laterally with respect to said jaw members to compensate for blades of different widths and to cooperate with the side edges of the blade mounted in the tool, means for retaining said elements in different positions of adjustment, and a clamp screw in screw threaded engagement with one of said jaw members and cooperating with the other jaw member in clamping a blade within and between said jaw members.

8. A scraping tool of the class described comprising two substantially similar jaw members within and between which a scraper blade is adapted to be supported, the inner adjacent faces of said jaw members being unobstructed to receive plates of different lengths and widths, yoke-shaped pins for coupling said jaw members together, the crossheads of said pins being disposed at opposite sides of the jaw members, said pins being adjustable laterally with respect to said jaw members to compensate for blades of different widths and to cooperate with the side edges of the blade mounted in the tool, means for retaining said pins in different positions of adjustment, a clamp screw in screw threaded engagement with one of said jaw members and cooperating with the other jaw member in clamping a blade within and between said jaw members, and said last named jaw member having a beveled surface in connection with which said screw operates.

9. A scraping tool of the class described comprising two substantially similar jaw members within and between which a scraper blade is adapted to be supported, the inner adjacent faces of said jaw members being unobstructed to receive plates of different lengths and widths, yoke-shaped pins for coupling said jaw members together, the crossheads of said pins being disposed at opposite sides of the jaw members, said pins being adjustable laterally with respect to said jaw members to compensate for blades of different widths and to cooperate with the side edges of the blade mounted in the tool, means for retaining said pins in different positions of adjustment, a clamp screw in screw threaded engagement with one of said jaw members and cooperating with the other jaw member in clamping a blade within and between said jaw members, said last named jaw member having a beveled surface in connection with which said screw operates, and a handle member detachably coupled with one of said jaw members.

10. A scraping tool of the class described comprising two substantially similar jaw members within and between which a scraper blade is adapted to be supported, the inner adjacent faces of said jaw members being unobstructed to receive plates of different lengths and widths, yoke-shaped pins for coupling said jaw members together, the crossheads of said pins being disposed at opposite sides of the jaw members, said pins being adjustable laterally with respect to said jaw members to compensate for blades of different widths and to cooperate with the side edges of the blade mounted in the tool, means for retaining said pins in different positions of adjustment, a clamp screw in screw threaded engagement with one of said jaw members and cooperating with the other jaw member in clamping a blade within and between said jaw members, said last named jaw member having a beveled surface in connection with which said screw operates, a handle member for said tool, and means involving a bolt and key-pin cooperating with one of said jaw members for detachably coupling the handle member in connection therewith.

11. A scraping tool of the class described comprising two substantially similar jaw members within and between which a scraper blade is adapted to be supported, the inner adjacent faces of said jaw members being unobstructed to receive plates of different lengths and widths, yoke-shaped pins for coupling said jaw members together, the crossheads of said pins being disposed at opposite sides of the jaw members, said pins being adjustable laterally with respect to said jaw members to compensate for blades of different widths and to cooperate with the side edges of the blade mounted in the tool, means for retaining said pins in different positions of adjustment, a clamp screw in screw threaded engagement with one of said jaw members and cooperating with the

other jaw member in clamping a blade within and between said jaw members, and said pins permitting longitudinal movement of said jaw members with respect to each other in clamping a blade within and between the same.

12. A scraper comprising two jaw members, means arranged centrally of said jaw members for coupling the same to permit relative movement of the end portions of said jaws, a clamp screw in threaded engagement with one end of one jaw member, a block having a beveled surface arranged in the corresponding end of the other jaw member and in connection with which said screw operates to move the other ends of said jaw members toward and from each other to clamp the blade within and between the same.

13. A scraper comprising two jaw members, means arranged centrally of said jaw members for coupling the same to permit relative movement of the end portions of said jaws, a clamp screw in threaded engagement with one end of one jaw member, a block having a beveled surface arranged in the corresponding end of the other jaw member and in connection with which said screw operates to move the other ends of said jaw members toward and from each other to clamp the blade within and between the same, and means for attaching a handle to one of said jaw members comprising a screw countersunk in one of said jaw members and projecting through the outer surface thereof.

14. A scraper comprising two jaw members, means arranged centrally of said jaw members for coupling the same to permit relative movement of the end portions of said jaws, a clamp screw in threaded engagement with one end of one jaw member, a block having a beveled surface arranged in the corresponding end of the other jaw member and in connection with which said screw operates to move the other ends of said jaw members toward and from each other to clamp the blade within and between the same, means for attaching a handle to one of said jaw members comprising a screw countersunk in one of said jaw members and projecting through the outer surface thereof, and the other jaw member being apertured to permit the attachment and detachment of said screw without separating said jaw members one from the other.

In testimony that I claim the foregoing as my invention I have signed my name this 12th day of April, 1930.

WILLIAM POTTER.