

UNITED STATES PATENT OFFICE.

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SAW JOINTER AND GAGE.

SPECIFICATION forming part of Letters Patent No. 703,348, dated June 24, 1902.

Application filed November 20, 1901. Serial No. 83,033. (No model.)

To all whom it may concern:

Be it known that I, CHARLY McDONNER, a citizen of the United States, residing at Wausaukee, in the county of Marinette and State of Wisconsin, have invented a new and useful Saw Jointer and Gage, of which the following is a specification.

The present invention relates to saw jointers and gages; and the object thereof is to provide a simple instrument of this character which may be adjusted to the different sizes and styles of saws to be operated upon.

The different sizes of crosscut-saws that the ordinary gage now in common use can operate upon are limited for the following reasons: In the first place, in this class of saws the curve of the cutting edge is not uniform and it is always at least desirable to cut both of a pair of raker-teeth simultaneously and at the same time protect the adjacent cutters. Now on a small saw the teeth are located closer together than on a large one, and as the gage should rest upon the cutting-teeth located on opposite sides of the rakers to be operated upon, so that both rakers will have an equal portion exposed to the cutting action, it will be evident that the gage-socket of an instrument that will just span the raker-teeth of a large saw will be large enough to receive not only the raker-teeth, but also several cutting-teeth of a small one. In like manner the socket of a small gage that will be large enough to receive the raker-teeth of a small saw will not nearly span those of larger sizes.

One of the important features of the invention resides in the construction of a gage which can be extended and contracted, so that it can be applied to and operated upon various kinds and sizes of saws having teeth spaced unequal distances apart.

A further feature relates to means which permit of the raising and lowering of the gage-plate without regard to the extension of the gage-body, which extension does not therefore interfere with the adjustment of the plate.

A still further feature relates to novel mechanism for adjusting and locking the gage-plate and in such other details as are hereinafter set out more fully.

In the accompanying drawings the preferred embodiment of the invention is illustrated and the construction and operation thereof is fully described in the following specification. The invention is, however, not to be limited to the specific form shown, but is open to such changes and modifications as the appended claims will cover.

In the drawings, Figure 1 is a perspective view of a saw jointer and gage embodying the present invention. Fig. 2 is a vertical longitudinal sectional view through the same. Fig. 3 is a vertical transverse sectional view taken on the line xx of Fig. 2, and Fig. 4 is a horizontal sectional view taken on the line yy of Fig. 2.

Similar numerals of reference designate corresponding parts in all the figures of the drawings.

The body of the instrument is made up of two sections, (designated, respectively, 10 and 11,) which sections are arranged in alinement and are slidably connected at their inner ends, so as to be movable toward and from each other. To this end the sectional body 10 is provided at its inner edge with a projecting tongue 12, that overlaps the section 11, and is slidably mounted in a channel 13 in said section. The tongue 12 is provided with a longitudinal slot 14, and a holding-screw 15 passes through said slot and is threaded into the section 11, whereby the tongue may be held against movement in the channel 13. The adjacent edges of the two sections are connected at their upper ends by a pin 16, slidably mounted in alined sockets 17 and normally held against movement in either direction by set-screws 18, threaded into the walls of the sections and bearing against said rod. The body is provided on one face intermediate its side edges with a longitudinally-disposed rib 19, forming an abutment for a jointer-file 20, which file is held in place by brackets 21, either secured to or forming an integral part of the rib 19 and provided with depending terminals 22, having set-screws 23, that bear against the outer edge of the file, the inner edge of said file fitting in a groove 24, located just beneath the rib 19. A longitudinal flange 25 projects from the opposite side of the upper edge of the body, this flange

being broken by the usual gage-plate socket 26, half of said socket being preferably located in one section and half in the other, the ends of the socket constituting guide-shoulders, that are movable toward and away from each other when the sections are relatively moved. In this socket is mounted a gage-plate comprising independent sections 27, which are arranged in overlapping relation. In the form shown the overlapping portions of the sections 27 are cut away and interlock, so that the plate as a whole presents a smooth uppersurface. One of these sections is preferably provided with a projecting portion 28, so that said section extends across the entire socket. Each of the sections 27 is mounted independently of the other upon one of the body-sections and has separate and independent adjusting mechanism. As the mechanism for both is similar in all respects, only that employed for one need be described. The section is provided with a depending shank 29, that is slidably mounted in an opening 30, made for the purpose, and is provided on one face with a rack 31. An operating-stem 32, journaled in the upper end of the body-section, is provided at its inner end with teeth 33, that mesh with the rack 31, while its outer or exposed end is channeled, as at 34, to receive a screw-driver or similar actuating device. A set-screw 35 bears against the opposite side of the shank 29 to normally hold the same against movement.

The application of the device will be obvious to those skilled in the art. When a saw is to be jointed, the jointer is placed upon the same with the file 20 bearing upon its teeth, which can be jointed in the usual manner. When the instrument is to be used as a gage for the raker-teeth, it is supported by means of the flange 25 upon the upper ends of the cutting-teeth and the gage-plate is adjusted to the desired distance below the upper edge of the body, or, in other words, the depth to which the teeth are to be cut. If the teeth are spaced at distances too far apart for the proper application of the file, the body-sections are separated by loosening the holding-screws 15 and 18 and sliding said sections apart, thus broadening the file-guide socket. In like manner the socket may be narrowed by sliding the body-sections toward each other. This, it will be observed, does not interfere with the adjustment of the gage-plate, as each section is independently operated and held. By this construction it will therefore be seen that an exceedingly useful improvement has been made in instruments of this character in that provision is made for the adjustment of the same to meet the requirements for various classes and kinds of work.

From the foregoing description it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be

understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. An instrument of the class described having an expansible and contractible file-guideway, and means for supporting the instrument upon a saw with said guideway in transverse relation thereto.

2. An instrument of the class described comprising slidably-connected sections each having a file-guiding shoulder, said shoulders being movable toward or from each other upon the relative movement of the sections.

3. An instrument of the class described comprising sections slidably connected and movable longitudinally upon each other, each of said sections having a file-guide shoulder, said shoulders being movable toward or from each other on the movement of the sections, and means for holding the sections against relative movement.

4. An instrument of the class described, comprising sections arranged in alinement and slidably connected at their inner ends, file-guide shoulders carried by the sections, and movable toward and from each other upon the relative movement of said sections, saw-positioning devices carried by the sections and located outside of the shoulders, and means carried by one section and engaging the other to hold said sections against relative movement.

5. An instrument of the class described, comprising slidably-associated sections arranged in alinement, one of said sections having a tongue that overlaps the other section and is provided with a longitudinal slot, and a screw passing through the slot and engaging the adjacent section to hold said sections against relative movement, said instrument having a transversely-disposed file-guide socket, a portion of which is located in each section.

6. In an instrument of the class described, a body, a gage-plate mounted upon the body and comprising sections movable toward and from each other, and guide-shoulders located at the outer ends of the gage-plate and movable toward and from each other.

7. In an instrument of the class described, a body having an expansible and contractible file-guide socket, and an expansible and contractible gage-plate mounted upon the body in the socket thereof.

8. In an instrument of the class described, a body comprising sections movable toward and from each other and having coacting guide-shoulders movable therewith, and a gage-plate located between the guide-shoulders and comprising sections, one of said gage-plate sections being mounted on each body-section and movable therewith.

9. In an instrument of the class described, a body, an expansible and contractible gage-plate carried by the body and comprising separate sections, and means for elevating and
5 depressing each section independently of the other.

10. In an instrument of the class described, an expansible and contractible body having an expansible and contractible file-guide
10 socket, a gage-plate carried by the body and located in the socket thereof, said gage-plate comprising separate sections, each section having a stem that is slidably mounted upon the body, and operating means engaging said
15 stems to move the same and thereby elevate or depress the sections.

11. In an instrument of the class described, a body comprising sections movable toward and from each other, a gage-plate comprising
20 separate sections mounted upon and movable with the body-sections, and means carried

by each body-section and engaging the gage-section carried thereby to elevate and depress the same.

12. In an instrument of the class described, 25 a body comprising sections movable toward and from each other, a gage-plate comprising overlapping separate sections mounted upon and movable with the body-section, means
30 for holding the body-sections against relative movement, operating devices carried by each body-section and engaging the gage-section to elevate and depress the same, and devices
35 for locking the gage-sections against movement.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CHARLY McDONNER.

Witnesses:

H. G. LAUN,
JOSEPH HRBACEK.