July 17, 1928. 1,677,365

E. PECK

ADJUSTABLE PLIERS

Filed Nov. 2, 1927

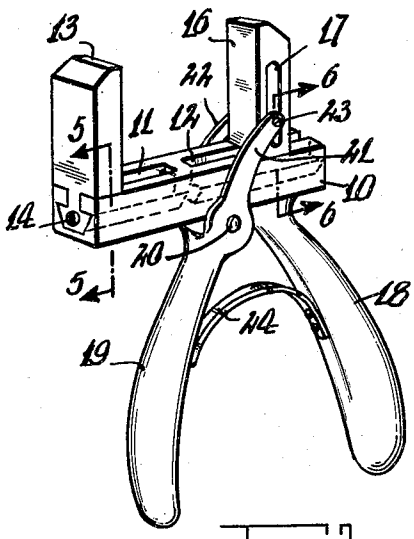


FIG. 1.

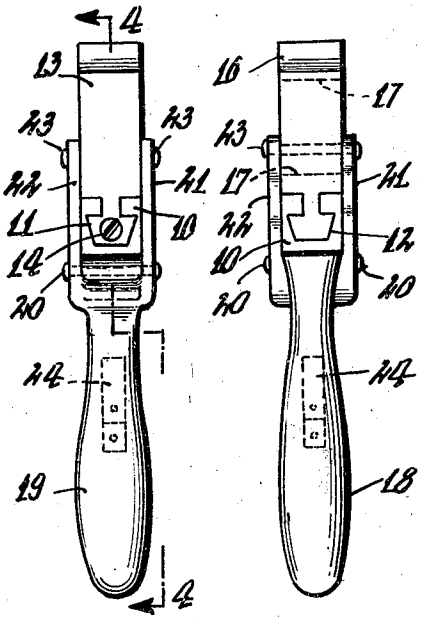


FIG. 2.

FIG. 3.

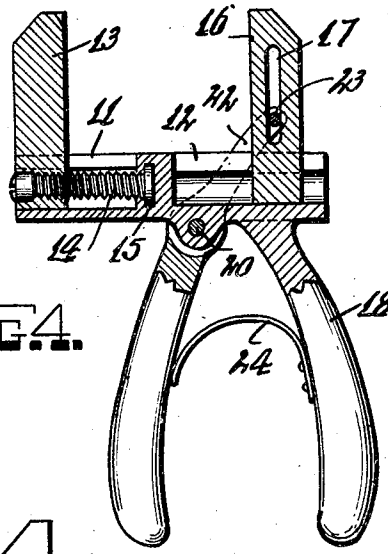


FIG. 4.

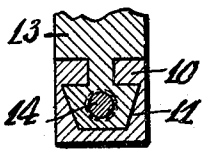


FIG. 5.

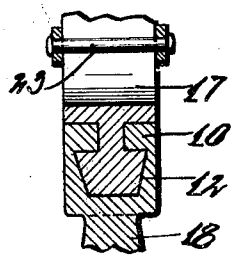


FIG. 6.

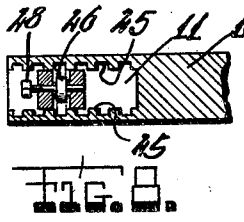


FIG. 8.

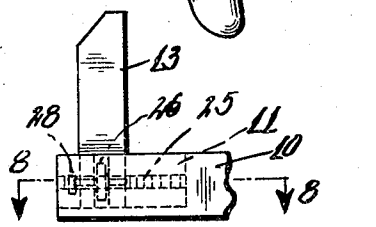


FIG. 7.

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Patented July 17, 1928. 1,677,365

UNITED STATES PATENT OFFICE.

EDWARD PECK, OF NEW YORK, N. Y.

ADJUSTABLE PLIERS.

Application filed November 2, 1927. Serial No. 230,428.

This invention relates generally to pliers and has more particular reference to adjustable pliers.

The invention has for an object, the provision of an adjustable plier of simple, durable construction, which is efficient and convenient in operation and which can be manufactured and sold at a reasonable cost.

The invention plier has an adjustable jaw which may be set in various positions and acts as the stationary jaw of the device and a movable jaw. The adjustable jaw may be set at various positions along the length of a jaw body and the movable jaw is capable of motion also along the length of the jaw body, so that the gripping faces of the jaws are always in the same relative angular positions to each other, for example, parallel to each other. One of the plier handles is firmly connected with the jaw body and the other pivotally connected with the jaw body and slidably arranged in an elongated slot in the movable jaw and a spring acts between the handles to normally urge them apart.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

Referring to the accompanying drawing forming a material part of this disclosure:—

Fig. 1 is a perspective view of a device constructed according to this invention.

Fig. 2 is a side view thereof, looking from the left hand side of Fig. 1.

Fig. 3 is a view of the other side of the device.

Fig. 4 is a face view of the device, a portion thereof being shown in section as taken on the line 4—4 of Fig. 2.

Fig. 5 is a fragmentary transverse vertical sectional view, taken on the line 5—5 of Fig. 1.

Fig. 6 is a similar view taken on the line 6—6 of Fig. 1.

Fig. 7 is a fragmentary face view of a modified form of the device.

Fig. 8 is a horizontal sectional view taken on the line 8—8 of Fig. 7.

The reference numeral 10 indicates generally a jaw body having a dove-tailed groove 11 at one end and a second dove-tailed groove 12 at the other end. A plier stationary jaw 13 is slidably arranged in the groove 11 and threadedly engages screw 14 within the groove 11 and rotatively mounted at its rear end in a portion of the body 10 as indicated at 15. A plier movable jaw 16 is slidably arranged in the groove 12 and has a transverse vertical elongated slot 17. A plier handle 18 is firmly connected with jaw body 10. A second plier handle 19 is pivoted as at 20 to the body 10 and the top is formed into two arms 21 and 22. A pin 23 passes through slot 16 and is connected to the arms 21 and 22. An expansion spring 24 is arranged between the handles 18 and 19.

As the screw 14 is turned, the jaw 13 moves along the body 10 and may be set as desired. Upon pressing handles 18 and 19 together, the handle 19 is moved towards handle 18 and the arms 21 and 22 move the jaw 16 towards jaw 13, the elongated slot 17 allowing the pin 23 to move upwards to permit this motion. Spring 24 returns the handles to open positions. Obviously in all positions of the jaws, the jaw faces will be parallel, since the jaw may move only longitudinally of the body 10.

The modification of the invention illustrated in Figs. 7 and 8 disclose a jaw body 10 having a row of teeth 25 formed on the sides of groove 11, and the jaw 13 has a cam 26 secured to shaft 27 rotatively arranged therein. A head 28 is formed on the shaft for engagement with a turning tool. The cam 26 is of greater length than width, so that in one position the cam engages the teeth 25 and holds the jaw lock as positioned and in another position, the cam is free from the teeth and the jaw 13 may be moved.

While I have above described the preferred form, construction and arrangement of the several elements employed, it will be understood that the device is nevertheless, susceptible of considerable modification therein, and I therefore reserve the privilege of resorting to all such changes as may be fairly embodied within the spirit and scope of the invention as claimed.

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

1. An adjustable plier comprising a jaw body having a groove at one end and a second groove at the other end, a jaw slidably arranged in the first groove, means for holding the jaw in adjusted positions, a

second jaw slidably arranged in the second groove, and formed with an elongated slot, a plier handle firmly connected with the jaw body, a second handle pivotally connected with the jaw body, and a pin engaged in the said elongated slot, and secured to the top end of the second mentioned handle.

2. An adjustable plier comprising a jaw body having a groove at one end and a second groove at the other end, a jaw slidably arranged in the first groove, means for holding the jaw in adjusted positions, a second jaw slidably arranged in the second groove, and formed with an elongated slot, a plier handle firmly connected with the jaw body, a second handle pivotally connected with the jaw body, and a pin engaged in the said elongated slot, and secured to the top end of of the second mentioned handle, and means for normally urging the handles apart.

3. An adjustable plier, comprising a jaw body having a groove at one end and a second groove at the other end, a jaw slidably arranged in the first groove, means for holding the jaw in adjusted positions, a second jaw slidably arranged in the second groove, so that the jaw faces remain in the same angular relation in all positions of the jaws, and the second jaw being formed with an elongated slot, a plier handle firmly connected with the jaw body, a second handle pivotally connected with the jaw body, and a pin engaged in the said elongated slot, and secured to the top end of the second mentioned handle.

4. An adjustable plier comprising a jaw body having a dove-tailed groove at one end and a second dove-tailed groove at the other end, a jaw slidably arranged in the first groove, means for holding the jaw in adjusted positions, a second jaw slidably arranged in the second groove, so that the jaw faces remain in the same angular relation in all positions of the jaws, and the second jaw being formed with an elongated slot, a plier handle firmly connected with the jaw body, a second handle pivotally connected with the jaw body, and a pin engaged in the said elongated slot, and secured to the top end of the second mentioned handle.

5. A device of the class described comprising a jaw body, a pair of jaws slidably arranged thereon, means for holding one jaw in adjusted positions, a handle fixed to the jaw body, a second handle pivoted to the jaw body, the second jaw being formed with an elongated slot and a pin engaged in the slot and secured to the top end of the second mentioned handle.

6. A device of the class described comprising a jaw body, a pair of jaws slidably arranged thereon, means for holding one jaw in adjusted positions, a handle fixed to the jaw body, a second handle pivoted to the jaw body, the second jaw being formed with an elongated slot, means for urging the handles apart, and a pin engaged in the slot and secured to the top end of the second mentioned handle.

In testimony whereof I have affixed my signature.

EDWARD PECK.