To all whom it may concern:

Be it known that I, FRANK O. SCHALKLE, a citizen of the United States, residing at Redfield, in the county of Spink and State of South Dakota, have invented certain new and useful Improvements in Adjustable Bench-Tools, of which the following is a specification.

This invention relates to bench tools, and more particularly to that class of bench tools known as adjustable clamps.

It has for its object to provide a simple, compact and adjustable bench clamp, that may be attached to and detached from the bench at will and will eliminate the usual bench screws and clamps that are now in use.

A further object is to furnish a clamp that is adaptable to all tables or benches, thus making it possible to use any table as a work bench.

With these and other objects in view, the present invention consists in the combination and arrangement of parts as will be hereinafter more fully described and particularly pointed out in the appended claims, it being understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming a part of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a top view of my clamp. Fig. 2 is a longitudinal section through the device. Fig. 3 is an end elevation of a bench having my device thereon. Fig. 4 is a similar view showing a table. Fig. 5 is a detail of a modified clamping device.

Referring to the drawings, 6 designates the shank of the clamping member, having at its inner extremity the horizontally extending clamp carrying member 7, formed integrally therewith. This clamp carrying member 7 is provided with a slot 8 in which there reciprocates the T-shaped clamp 9, having the cross arm 10 bearing against the upper face of said carrying member 7 and forming guides for the clamp. To provide for the reciprocation of this clamp, the screw 11 is swiveled therein as at 13, the screw being engaged in the pendent arm 12, formed at the extremity of the member 7.

Adapted to receive the shank 6 and allow the same to reciprocate therein is the rectangularly formed sleeve 1 having the passage 14 of similar contour therethrough and the clamping screw 16 operating in the orifice 15 in the upper surface thereof. In order to attach the whole device to the bench there is provided the horizontal member 2, integral with the sleeve and extending at right angles to the shank 1 in a direction opposite to that of the said clamping device, and having the upward extension 3 carrying the screw 4 having the plate 5 to clamp and engage beneath and against a portion of a bench or table.

The operation of this device is as follows: The member 2 of the sleeve is engaged under the edge of a bench or table, as illustrated in Figs. 3 and 4, and the screw 4 operated to securely clamp the device thereon. The clamp carrier 7 is then moved vertically the proper distance to accommodate the work to be operated upon, and secured in position by means of the screw 16. The clamp member 9 may then be moved laterally with respect to the edge of the table to clamp a piece of work against the edge of the table as shown. It will be seen that by the slidable engagement of the member 6 with the sleeve the device may be accommodated to tables having different sized side boards, and may be adjusted to different degrees of overhang in the table tops.

In Fig. 5 there is shown a modification of the device, in which the horizontal extension 7' is provided with a series of ratchet teeth 20 on its upper surface and the carrying arm 12 is replaced by a sliding piece 21 disposed slidably in a slot 22 similar to the slot 8, and having a dog 23 at its upper end engaging the ratchet teeth 20 to hold it against outward movement upon the arm 7'. The member 23 is carried between two lugs 25 on the outer side of the member 21, and has a downwardly extending arm arranged to engage the ratchet teeth and an upwardly extending operating portion against which bears the spring 24 seated against the member 21 as shown. An operating screw 11' similar to the one 11 is engaged through the lower end of the member 21, and carries a sliding piece 9' similar in form and function to the one 9 above described.

What is claimed is:

1. In a tool of the class described, the combination with a sleeve having a lateral extension, and clamping means carried
thereby, of a shank member slid able therein having a lateral extension, and a sliding clamp member carried thereby adapted for cooperation with the side of a table engaged with the sleeve to hold a piece of work.

2. A device of the character described comprising a rectangular sleeve member having an integral L-shaped arm extending from one end thereof, the outer end extending inwardly parallel with the sleeve, a clamping screw engaged through the extension to hold a portion of furniture between the extension and the sleeve, a slidable shank engaged in the sleeve, means for securing the shank adjustably at various points of its movement in the sleeve, said shank having a horizontal extension provided with a longitudinally extending slot, a clamping member slid able in the slot and adapted for engagement against a work piece for the purpose indicated, and means for holding said clamping member adjustably on the shank.

In testimony whereof I affix my signature, in presence of two witnesses.

FRANK O. SCHALKLE.

Witnesses:

W. F. BRUELL,

Geo. S. Hopkins.