F. S. BAIRD & W. PETERS.

AUTOMOBILIST'S TOOL.

APPLICATION FILED DEC. 5, 1910.

997,227.

Patented July 4, 1911.

2 SHEETS—SHEET 1.

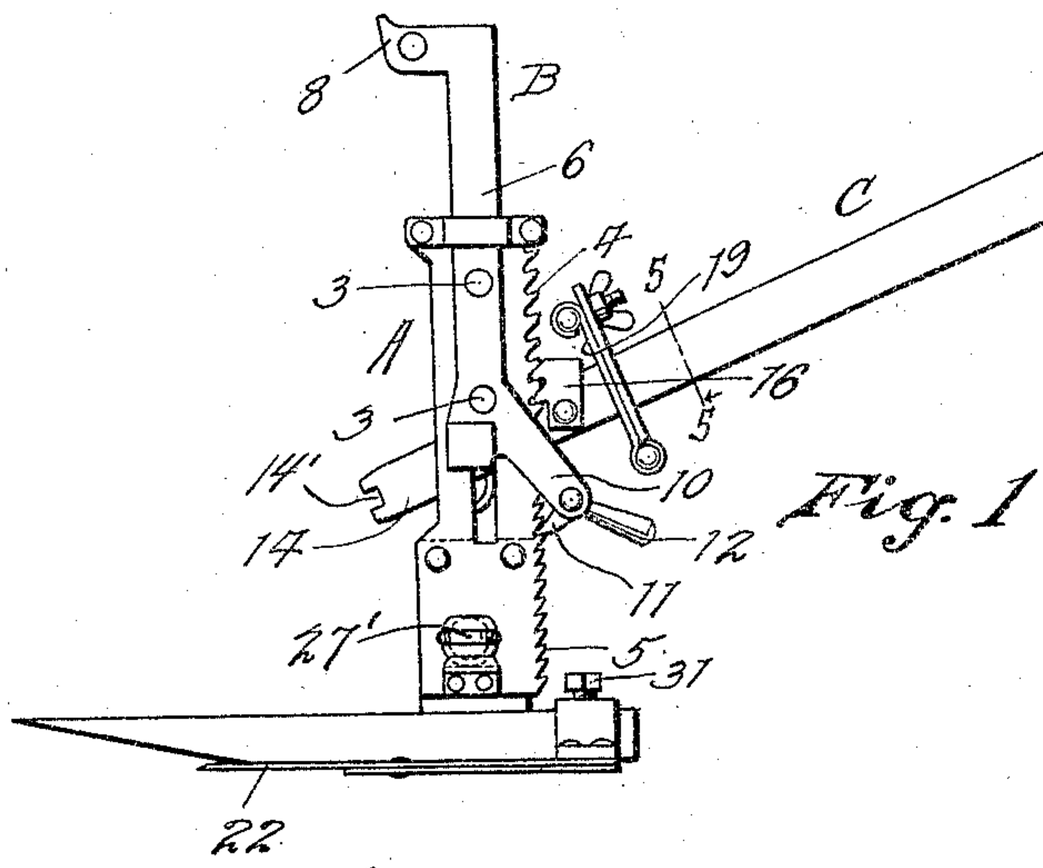

Fig. 1

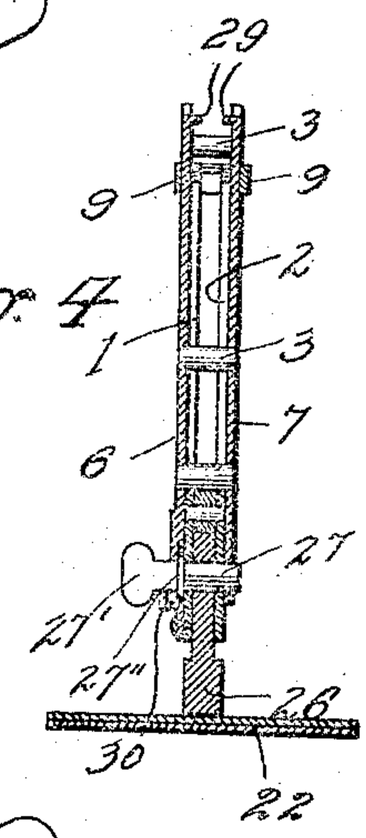

Fig. 4

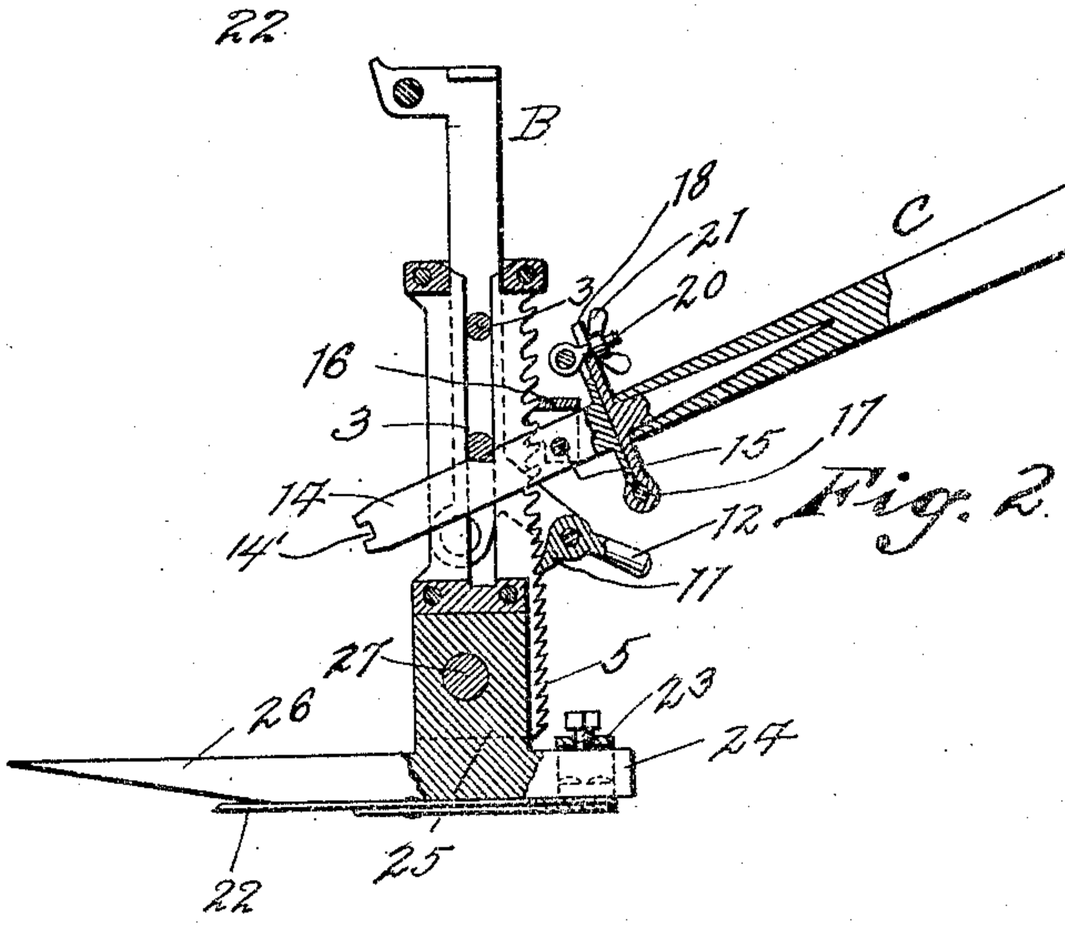

Fig. 2.

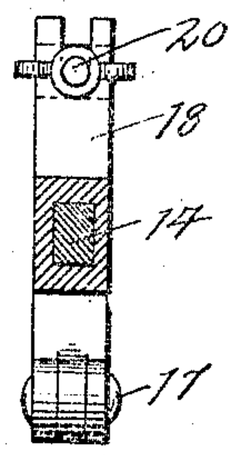

Fig. 5

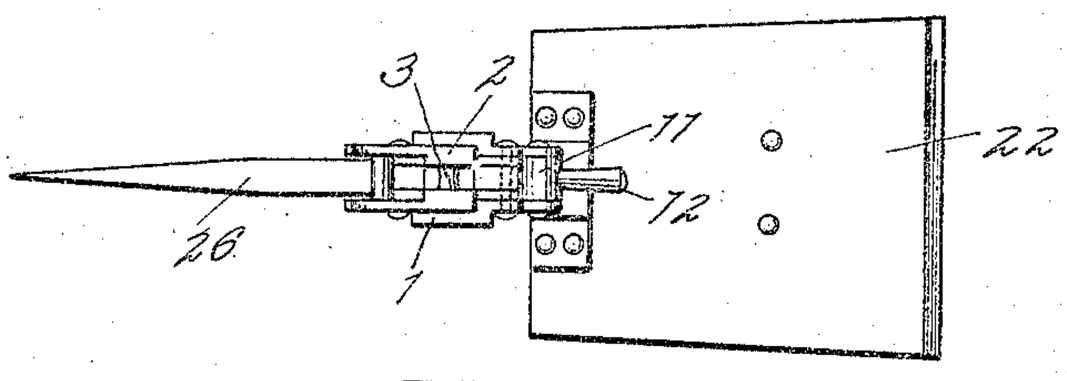

Fig. 3

Witnesses

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2 SHEETS—SHEET 2.

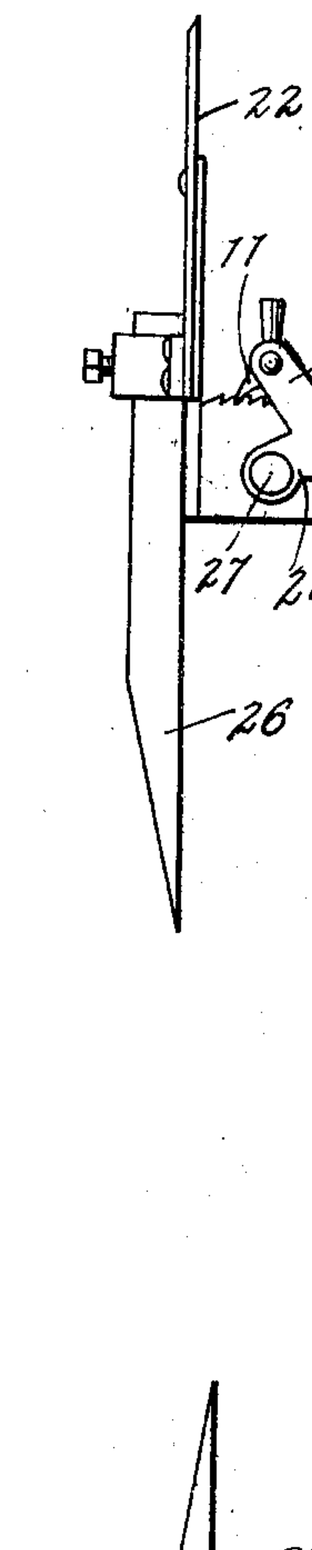

Fig. 6

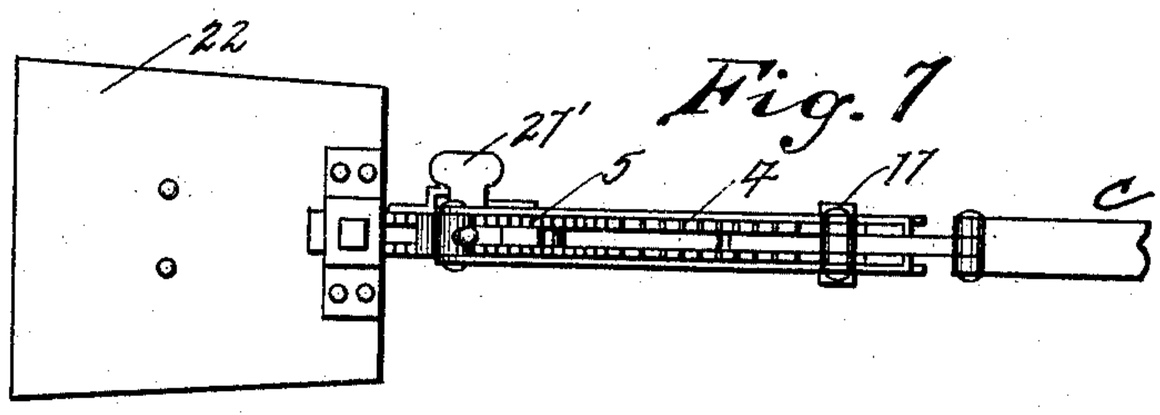

Fig. 7

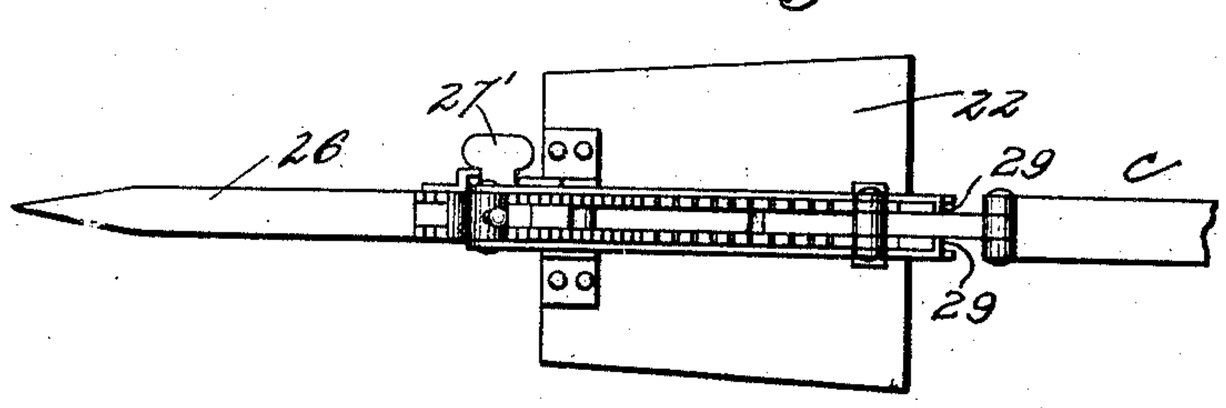

Fig. 8

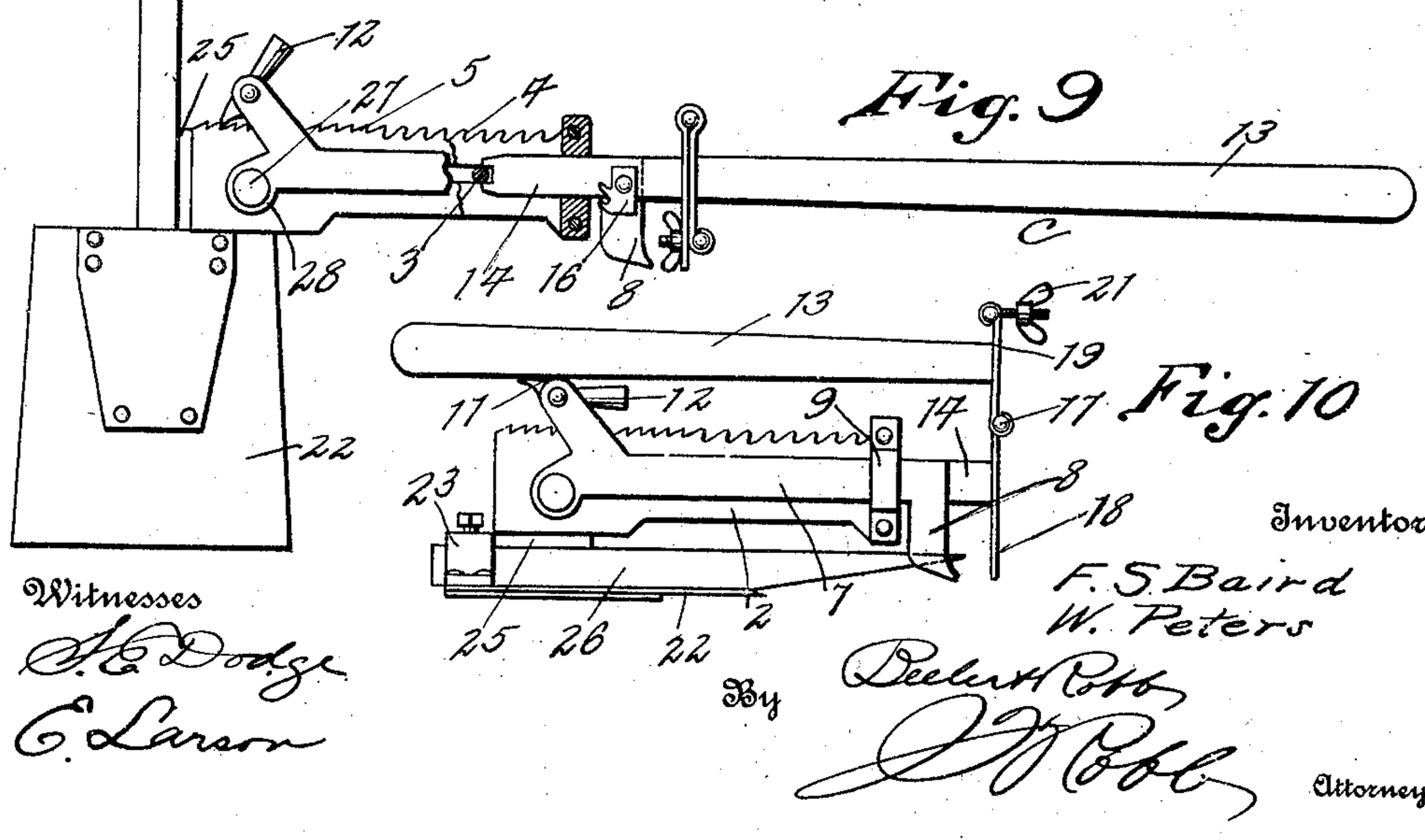

Fig. 9

Fig. 10

Witnesses

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UNITED STATES PATENT OFFICE.

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AUTOMOBILIST'S TOOL.

997,227. Specification of Letters Patent. Patented July 4, 1911.

Application filed December 5, 1910. Serial No. 595,834.

To all whom it may concern:

Be it known that we, FRANK S. BAIRD, citizen of the United States, and WILLIAM PETERS, a subject of the King of England, residing at Congress, in the county of Yavapai and Territory of Arizona, have invented certain new and useful Improvements in Automobilists' Tools, of which the following is a specification.

The object of this invention is to provide a combination tool particularly adapted for use by automobilists and comprises in its organization a lifting jack, pick, shovel, hoe, ax, and pinch bar.

For a full understanding of the invention, reference is to be had to the following description and to the accompanying drawings, in which:

Figures 1 and 2 are a side elevation and vertical sectional view, respectively, showing the invention with the parts adjusted to form a lifting jack; Fig. 3 is an end view of the invention with the parts arranged to provide a pick and hoe; Fig. 4 is a sectional view of the device, certain parts omitted; Fig. 5 is a section on the line 5—5 of Fig. 1, looking toward the jack; Fig. 6 is a side view of the invention with the parts adjusted to provide a pick and hoe; Fig. 7 is a plan view of the invention as adjusted to form a shovel; Fig. 8 is a similar view showing the parts adjusted to provide a pinch bar; Fig. 9 is a side view partly in section showing the parts arranged as when forming a pick and ax; Fig. 10 is a view showing the invention in folded condition.

Referring to the device as illustrated in Figs. 1 and 2, a body A is provided and comprises spaced plates 1 and 2 slotted to receive rivets or fastening members 3 and each formed with a series of notches 4 and a series of teeth 5 on one edge. A lifting device B is mounted on the body A of the jack and comprises spaced plates 6 and 7 connected by the rivets 3 and formed at their upper ends with lateral extensions providing a lifting head 8. The side plates 1 and 2 of the body A are provided at their upper portions with guide members 9 between which and said plates, the plates 6 and 7 are slidable vertically on the outer sides of the parts 1 and 2. The side plates 6 and 7 of the lifting device are provided at their lower portions with downwardly and outwardly inclined arms 10 between the lower ends of which is pivoted the dog 11 having the handle 12, said dog being adapted to engage with the teeth 5. The lifting device B is adapted to be raised by means of a lever C comprising the handle 13 and the shank 14, the latter being preferably made of metal. Pivoted to the shank 14 at 15 is a toothed yoke or U-shaped dog 16, the teeth of which are adapted to engage with the notches 4 of the side members or plates of the body A. To enable the lever C to be folded, the handle 13 is pivoted to the shank 14 at 17, the parts 13 and 14 being provided with offstanding extensions 18 and 19, respectively, a bolt 20 being pivoted to the extension 19 and adapted to enter a slot in the end of the extension 18, a thumb-nut 21 being applied to the threaded end of the member 20 to secure the parts 18 and 19 together and hold the handle 13 of the lever in alinement with its shank 14. By positioning the lever C in the manner shown in Figs. 1 and 2, the shank 14 of the lever is engaged beneath one of the rivets or fastening members 3 of the lifting device or member B and upward and downward movement of the handle 13 will be effective to impart a step by step movement to the lifting member to elevate the same in the customary manner.

When using the device as a lifting jack, the base of the device consists of the shovel 22, the latter having a loop 23 on one side thereof to receive the extension 24 of a head 25, the latter having a pick 26 integral therewith. The head 25 is secured between the lower ends of the plates or sides 1 and 2 of the body A, by means of a detachable pin 27. The pin 27 performs a dual function in that it not only secures the head 25 to the body A, but the end of the pin opposite the finger piece 27′ thereof is adapted to enter an opening in a locking arm 28 projecting downwardly from the lower end of the plate 7 of the lifting device B. The lifting device B will be locked from movement when the pin 27 engages the arm 28 in the above manner, as shown in Fig. 6, in which view the parts are adjusted so that the invention may be employed either as a hoe or pick, the lever C constituting the handle for operation of the tool.

In Fig. 7 the device as shown illustrates the shovel 22 in its operative position,

whereas in Fig. 8, the pick 26 is arranged parallel with the body A of the lifting jack, by adjusting the head 25 properly, removal of the pin 27 permitting said head to assume various positions between the lower end portions of the side plates 1 and 2.

In Fig. 9, the shovel 22 is so adjusted that it may be used as an ax, it being contemplated that the shovel body shall be constructed of hard metal to afford the above function.

As shown in Fig. 10, the device comprising the invention is collapsed or folded, the handle 13 of the lever C having the joint between it and the shank 14 broken so that said handle may be raised substantially parallel with the shovel, pick and body A of the lifting jack, space being economized materially.

When the device is not used as a lifting jack, a peculiar adjustment of the shank of the handle is obtained. Said shank is forced downwardly between the upper ends of the plates 1 and 2 and the upper ends of the side plates 6 and 7 of the lifting member B are formed at the lifting head 8 with inwardly extending flanges as shown at 29 in Fig. 4. The lifting device B is moved upwardly to its limit of movement to permit the shank 14 to enter the space between the sides of said lifting member, a notch 14′ on the end of the shank being adapted under such conditions to receive one of the rivets or fastenings 3 beneath the flanges 29. When the parts have been arranged in the position above referred to, the locking pin 27 is withdrawn and the lifting member B is forced downwardly between the sides of the body A of the lifting jack until the opening in the part 28 registers with the pin 27 whereupon the latter is forced into the opening of said part 28, locking the two parts A and B rigidly with respect to one another, the shank of the lever C being simultaneously locked rigidly between the sides of the part B and not removable therefrom until the part B has been raised or moved outwardly on the body A to permit the dog 16 to be moved laterally from beneath the flanges 29 and thus disengaged from the part B.

The pin 27 has a flange 27″ near the finger piece 27′ and said flange is engaged on its outer side by a bracket 30 secured to the plate 1. A flat portion of the flange 27″ permits of entire removal of the pin, said portion being shown in Fig. 1. When the device is being used as a jack, the pin 27 is pulled outwardly a slight distance so that its small end is arranged flush with the inner side of the plate 7 and will not interfere with the up and down movement of said plate which forms a part of the lifting member B, before described.

The loop 23 of the shovel has a set screw 31, whereby the shovel is secured to the part 24, the notch 14′ of the shank 14 of the lever C being shaped to provide a wrench whereby to turn said screw 31.

Having thus described the invention, what is claimed as new is:—

1. In combination, a lifting jack body comprising a base forming a tool spaced sides, a lifting member slidably mounted on said body, a lever, and a lifting dog carried by said lever and co-acting with the body when the lever is used as a lever to raise the lifting member, said lever being adapted to be positioned between and in alinement with the sides of the body when the device is not used as a jack, and the lifting member having means to engage the lifting dog of the lever to prevent displacement of the latter from alined position between the sides of the body.

2. In combination, a lifting jack body comprising a base forming a tool spaced sides, a lifting member slidably mounted on said body, a lever, a lifting dog carried by said lever co-acting with the body to raise the lifting member, said lever being positioned between and in alinement with the sides of the body when the device is not used as a jack, and the lifting member having means to engage the lifting dog of the lever to prevent displacement of the latter from between the sides of the body, and means for locking the lifting member from movement when the lever is arranged in alinement with the body to facilitate operation of said tool.

3. In combination, a lifting jack body composed of a base forming a tool spaced sides toothed at one edge, a lifting member slidably mounted on said body and having a lifting head at its upper end, a locking dog carried by the lifting member co-acting with the teeth aforesaid to hold the lifting member at a predetermined adjustment, a lever operable transversely with reference to the body and having the end thereof adapted to engage the lifting member to raise the latter when the device is used as a jack, a lifting dog supported by the lever, said lever being adapted when out of use to be positioned between the sides of the body in alinement therewith, flanges carried by the lifting member to engage over the lifting dog and hold the lever from displacement when in alinement with the body to facilitate its use to operate the tool, and a locking pin passing through the body and adapted to engage the lifting member to prevent movement of the latter on the body when the lever is secured in alinement therewith.

4. In combination, a lifting jack body comprising spaced sides, a lifting member slidably mounted on said body, a lever, a lifting dog carried by said lever co-acting with the body to raise the lifting member, said lever being positioned between and in alinement with the sides of the body when

out of use, and the lifting member having means to engage the lifting dog of the lever to prevent displacement of the latter from between the sides of the body, means for locking the lifting member from movement when the lever is arranged in alinement with the body as above mentioned, and a tool supported by said locking means.

5. In combination, a lifting jack body comprising spaced sides, a lifting member slidably mounted on said body, a lever, a lifting dog carried by said lever co-acting with the body to raise the lifting member, said lever being positioned between and in alinement with the sides of the body when out of use, and the lifting member having means to engage the lifting dog of the lever to prevent displacement of the latter from between the sides of the body, means for locking the lifting member from movement when the lever is arranged in alinement with the body as above mentioned, and a detachable tool supported by said locking means.

6. In combination, a lifting jack body comprising spaced sides, a lifting member slidably mounted on said body, a lever, a lifting dog carried by said lever co-acting with the body to raise the lifting member, said lever being positioned between and in alinement with the sides of the body when out of use, and the lifting member having means to engage the lifting dog of the lever to prevent displacement of the latter from between the sides of the body, means for locking the lifting member from movement when the lever is arranged in alinement with the body as above mentioned, a head carried by the body and adapted to be held in different positions by the locking means aforesaid, and reversible tools supported by said head.

7. In combination, a lifting jack body composed of spaced sides toothed at one edge, a lifting member slidably mounted on said body and having a lifting head at its upper end, a locking dog carried by the lifting member co-acting with the teeth aforesaid to hold the lifting member at a predetermined adjustment, a lever operable transversely with reference to the body and having the end thereof adapted to engage the lifting member to raise the latter, a lifting dog supported by the lever, said lever being adapted when out of use to be positioned between the sides of the body in alinement therewith, flanges carried by the lifting member to engage over the lifting dog and hold the lever from displacement when in alinement with the body, a locking pin passing through the body and adapted to engage the lifting member to prevent movement of the latter on the body, and a detachable tool carried by the body and held in place by the locking pin aforesaid.

8. A lifting jack comprising a base constituting a tool, sides, a lifting member mounted on the sides, a lever coöperating with the sides by movement relative thereto to raise the lifting member, and means for holding the lever rigidly on the sides to facilitate operation of the tool thereby.

9. A lifting jack comprising a body, a lifting member mounted thereon, a base consisting of a tool, a lever movable upon the body and coacting therewith and with the lifting member to lift the latter, and means for rigidly holding the lever in alinement with the body to form a handle for operation of the tool.

10. A lifting jack, comprising a body, a lifting member mounted thereon, a base consisting of a tool, a lever movable upon the body and coacting therewith and with the lifting member to lift the latter, means for rigidly holding the lever in alinement with the body to form a handle for operation of the tool, and means for adjusting the position of the base when the lever is held rigidly in alinement with the body of the jack, whereby said base may be used as a tool in different adjustments.

In testimony whereof we affix our signatures in presence of two witnesses.

FRANK S. BAIRD.
WILLIAM PETERS.

Witnesses:
CAREM COOPER,
P. L. WARREN.