

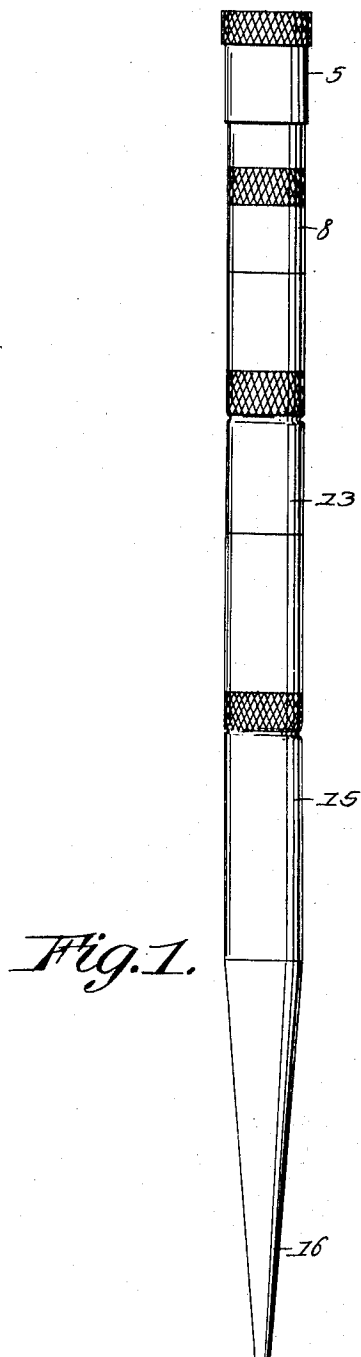
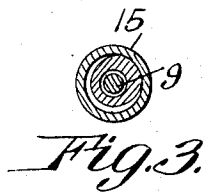
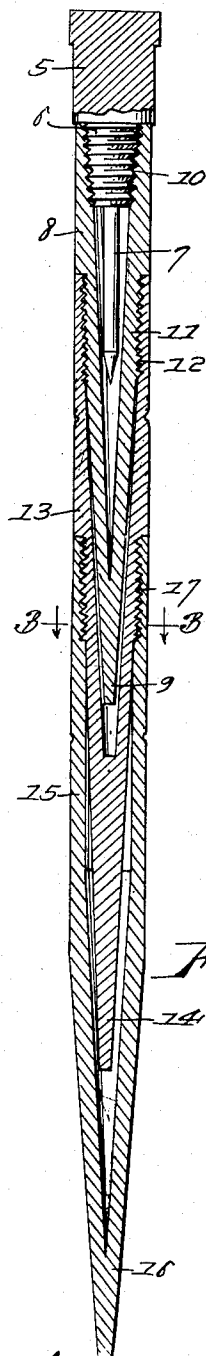
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J. SUDWEEKS

PUNCH

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PUNCH.

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To all whom it may concern:

Be it known that I, JONATHAN SUDWEEKS, a citizen of the United States of America, and resident of Ephraim City, in the county of Sanpete and State of Utah, have invented certain new and useful Improvements in Punches, of which the following is a specification.

This invention relates to compound tools, and particularly to a punch having a plurality of punching elements of different sizes which are nested with relation to one another in order that a punch of any desired diameter, within predetermined bounds, may be accessible through the employment of one of the plurality of punch sections constituting the device.

It is an object of this invention to produce a series of punches in nested relation to one another and so connected together that a relatively long punch with a large point may be provided and used without damaging any of the other sections which are nested to produce the large punch; and the said invention further contemplates the provision of sections which can be readily assembled or dismantled for the purpose of exposing the punch of the desired size and length when the same is to be used.

With the foregoing and other objects in view, the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of this application wherein like characters denote corresponding parts in the several views, and in which—

Figure 1 illustrates a view in elevation of a punch embodying the invention;

Figure 2 illustrates a vertical sectional view thereof; and

Figure 3 illustrates a sectional view on a line corresponding with the line 3—3 of Fig. 2.

In these drawings 5 denotes what might be termed the head of the punch the same comprising a conical end threaded shank 6 terminating in a center punch 7 which constitutes a member of smallest diameter and length of the several tools. The head 5 is common to all of the members, that is to say, it will be used as the impact receiving portion for any one of the punches while the work is being performed.

A punch section 8 has a point 9, and the said section 8 is hollow the chamber or recess from its upper end for a suitable distance converging to admit of the housing of the conical projecting and externally threaded portion 6 and the punch 7 of the head. The section 8 is internally threaded at one end as shown at 10 to engage the threads of the conical shank 6 whereby the section is secured to the head in a manner whereby said head may be readily detached.

The section 8 is reduced in diameter to provide a circumferential shoulder and is externally threaded as at 11 to engage the threads 12 of the punch section 13 which has a punching point 14 of suitable size and adapted to extend into the punch section 15, which latter section also terminates in a punch point 16.

The section 15 has opposite its points 16 internal or female threads 17 for engagement with the male threads on section 13. The section 15 may engage with the section 8 when the section 13 is detached, the construction being such as to provide that joints may be changed to suit particular requirements for the purpose of increasing the length of the completed device, or for more closely nesting the sections, according to the requirements in practice.

It will be seen from an inspection of the drawing that punches with points of different diameters are provided, or that the sections may have punches of the same diameter, the sections may be of different lengths and connectable to the section 8, for use as desired.

It is the purpose of the inventor to so construct the joints that the upper end of each section will bear against the shoulder of the next succeeding section in order that the strain on the threads themselves will, to a great degree, be removed, it being shown that the ends of the sections engage the shoulders of the sections to which they are attached.

A further purpose of applicant's improvement is to provide the head section 5 with much coarser screw threads formed upon a conical projecting portion which engages with the smaller punch section 8, such construction providing a head section which may be more easily detached from the shortest punch section and the head section, and these sections have shoulders against which the adjacent sections will abut.

As an entirety, this punch provides a sub-

stantially cylindrical bar composed of several longitudinally alined sections, each having the same exterior diameter, and in practice, the tool carried by the head may be used as a scribe or center punch, and the end portions of the other tools are adapted to be used either as enlarging punches or as nail punches.

I claim:

10 1. A tool of the character described consisting of a head section and a plurality of partially tubular sections, the head section having a conical screw-threaded projecting portion, a shoulder about said threaded portion, a tool which extends from said threaded portion, a member for attachment to the head section having a recess of a size to receive the aforesaid mentioned tool, said recess being internally screw-threaded for engagement with the conical threads of the head section, a cylindrical externally threaded portion of less diameter than the cylindrical portion which engages with the shoulder of the head, said member being

tapered from said screw-threaded portion to its end, and other similarly constructed detachable members of different lengths which may be placed in engagement with the section constructed for attachment to the head section.

2. A tool comprising a plurality of pointed tool sections, each having cylindrical body portions of the same diameter but of different lengths, one of said tool sections comprising a head member provided with a conical screw-threaded projecting portion, a shoulder which extends from the conical portion, a tool section having a tapered recess of a size to receive the tool of the head section and with internal threads for engagement with the threads of the head section and also with a reduced exterior cylindrical portion with threads beyond which the tool member is tapered, and a plurality of tool members of similar construction except as to length for independent attachment to the member that engages with the head section.

JONATHAN SUDWEEKS.