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 COMBINED DIVIDERS AND CENTER PUNCH
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1,009,256.

Patented Nov. 21, 1911.

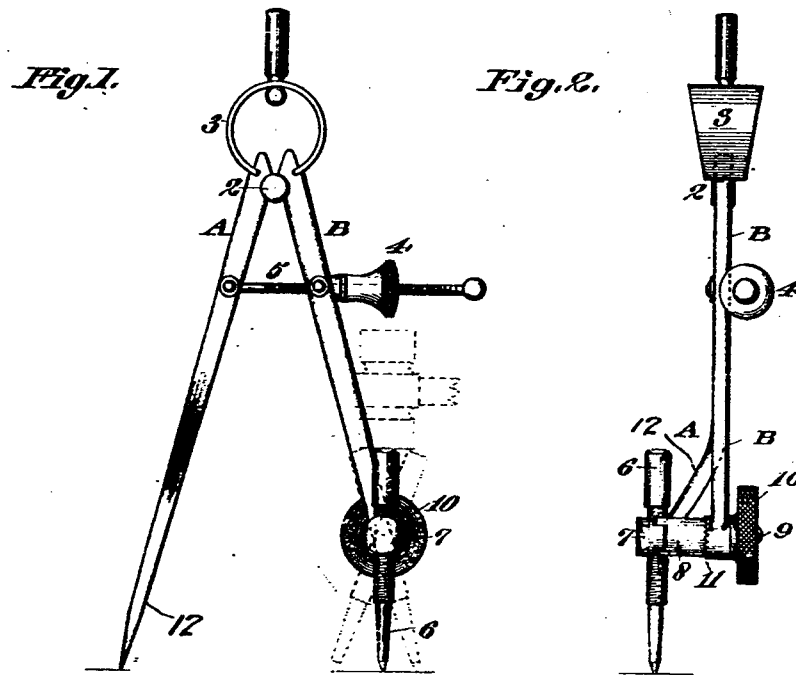


Fig. 3.

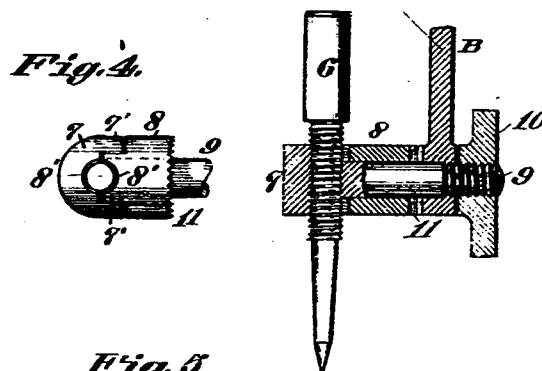


Fig. 6

Witnesses,
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UNITED STATES PATENT OFFICE.

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COMBINED DIVIDERS AND CENTER-PUNCH.

1,009,256.

Specification of Letters Patent.

Patented Nov. 21, 1911.

Application filed September 6, 1910. Serial No. 580,640.

To all whom it may concern:

Be it known that I, HUMPHREY O'LEARY, a citizen of the United States, residing in the city and county of San Francisco and State of California, have invented new and useful Improvements in Combined Dividers and Center-Punches, of which the following is a specification.

This invention relates to a mechanic's tool, and particularly pertains to a combined divider and center-punch.

It is the object of this invention to provide a tool which is especially applicable for use in machine-shop work for laying out and punching center marks, etc. on the surface of the material being worked, and by means of which this laying out and punching may be accomplished in one operation.

It is common in machine shop practice for the mechanic to lay out points, such as the centers of holes to be drilled, by means of a pair of dividers, especially where there is to be a number of centers at equal distances apart. The mechanic then goes over the work thus laid out with a sharp pointed tool known as a center-punch, and indents the marks previously made by the dividers, by delivering a blow on the center-punch with a hammer. This necessitates going over the work twice in order to accomplish the one result of forming an indent or starting center into which to set the center of a drill, punch or other tool. By the use of this invention the same work may be done in one operation.

The invention consists of the parts and construction and combination of parts as hereinafter more fully described and claimed having reference to the accompanying drawings, in which—

Figure 1 is an elevational view of the invention. Fig. 2 is a side view of same. Fig. 3 is an enlarged central section of the sectional nut and the punch adjustment. Fig. 4 is a plan view of the sectional nut. Fig. 5 is a perspective view of one of the members of the sectional nut.

In the drawings A and B represent two divider or compass legs, pivoted at 2 and acted on by a spring 3 to normally spread them apart. The movement of the legs A—B toward or from each other is gov-

erned by a thumb nut 4 which is threaded on a screw 5 mounted on the legs A—B.

The novelty of this invention resides in part in providing one of the legs, as B, with a combined compass point and center-punch 6 which is screw-threaded and fits in a pivoted clamp or sectional nut made up of two parts or sections, 7 and 8. The part 7 extends through the sleeve section or part 8 and has a screw-threaded stem 9 passing through the lower end of the leg B and receiving a thumb nut 10. The adjacent ends of sections 7—8 have interlocking tongues 7' to prevent turning, and these adjacent ends having registering cooperating semi-circular recesses 8' which are screw-threaded to receive and embrace the screw-threaded punch member 6. The side of the leg B and adjacent end of the sleeve member 8 are serrated, as at 11, so that when the wing nut 10 is screwed up the part 8 cannot turn on its axis, and as the member 8 interlocks with the part 7, and each part carries a portion of the threads to engage the threaded part of the center-punch 6, the latter is also firmly gripped when the nut 10 is drawn tight; that is to say, the nut 10 performs the double function of clamping the parts 7 and 8 about the punch 6 and locking the clamp by the teeth 11, so that when the legs A—B are adjusted or opened out and set by the thumb nut 4, the center-punch 6 may be adjusted and maintained in a vertical position. The leg A has an off-set point 12 to put it in line with the punch 6.

In practice, the operator adjusts the compass legs A—B, so that the points 6—12 will be separated the desired distance apart, then holding the tool upright on the surface to be marked, he strikes a blow with a hammer on the head of the punch 6, and thereby forms a dent on the surface of the material. He then puts the point 12 in the dent thus made, and with the point of the punch 6 in the next place in advance repeats the blow, and so on, thus forming a series of center-punch dents at equidistances apart at one operation, instead of a series of scratches as usually made with a divider, which requires going over the work again with a hand center-punch to form the necessary dents. By loosening the clamp nut 10, the

center-punch can be screwed up or down in its socket formed on the parts 7—8, or turned to assume different positions, as shown in Fig. 1, or both, as the exigencies of any particular case may require.

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

10 A combined divider and center-punch, consisting of two pivoted divider legs, one of said legs having a transverse perforation at its lower end and being serrated on one side around said perforation, a sleeve with a serrated end fitting the serrated perforated portion of the leg, the opposite end
15 of said sleeve having tongues projecting in the direction of the length of the sleeve and said end having a semi-circular threaded

recess, a complementary member interlocking with said tongues and having a corresponding semi-circular threaded recess, said
20 complementary member having a stem extending through the sleeve and the perforation in the leg, a screw-threaded center-punch and point adjustably received in said
25 screw-threaded recesses, and a nut fitting said stem and operative to clamp the sleeve and its complementary member and the leg together.

In testimony whereof I have hereunto set
30 my hand in the presence of two subscribing witnesses.

HUMPHREY O'LEARY.

Witnesses:

AUGUST SCHULZE,
F. H. SILBERBERG.