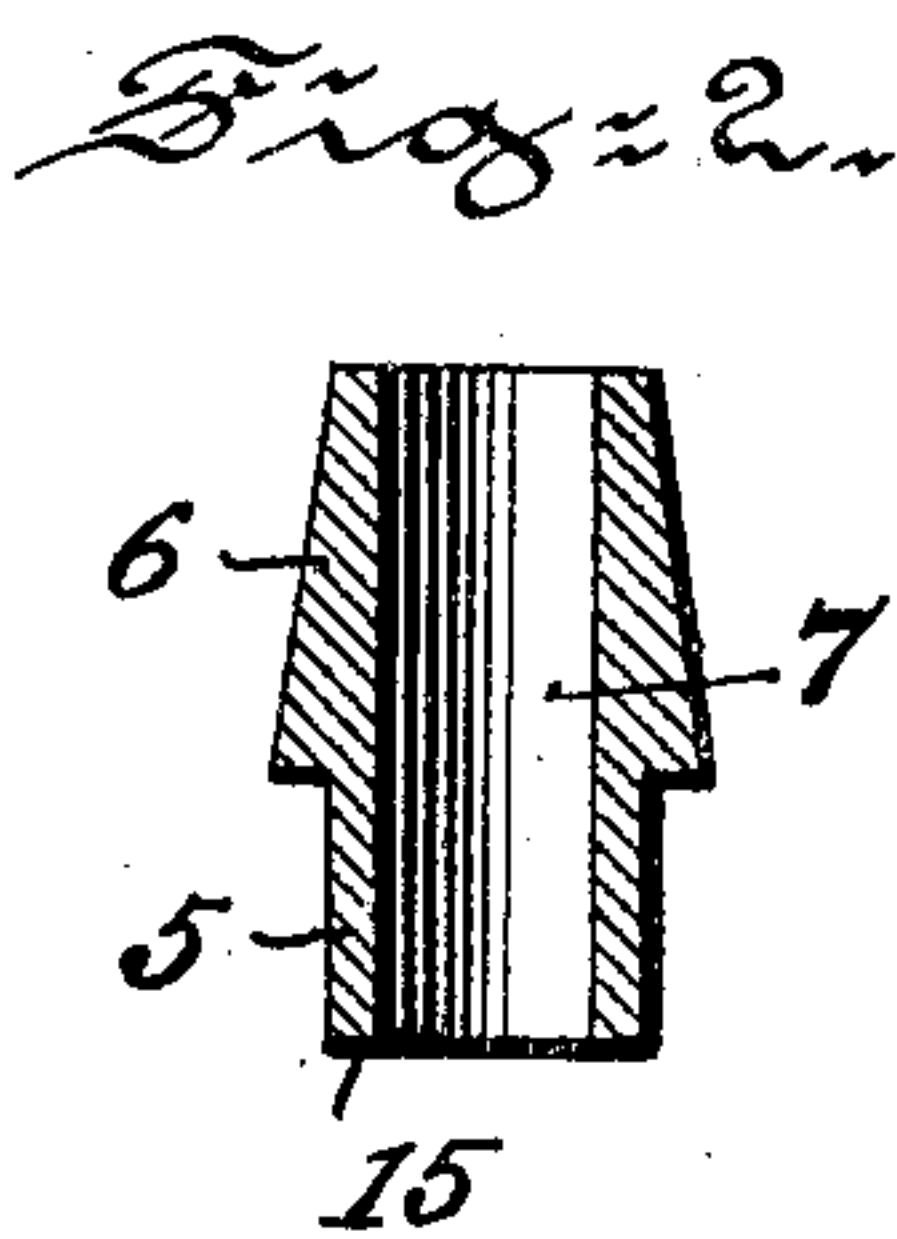
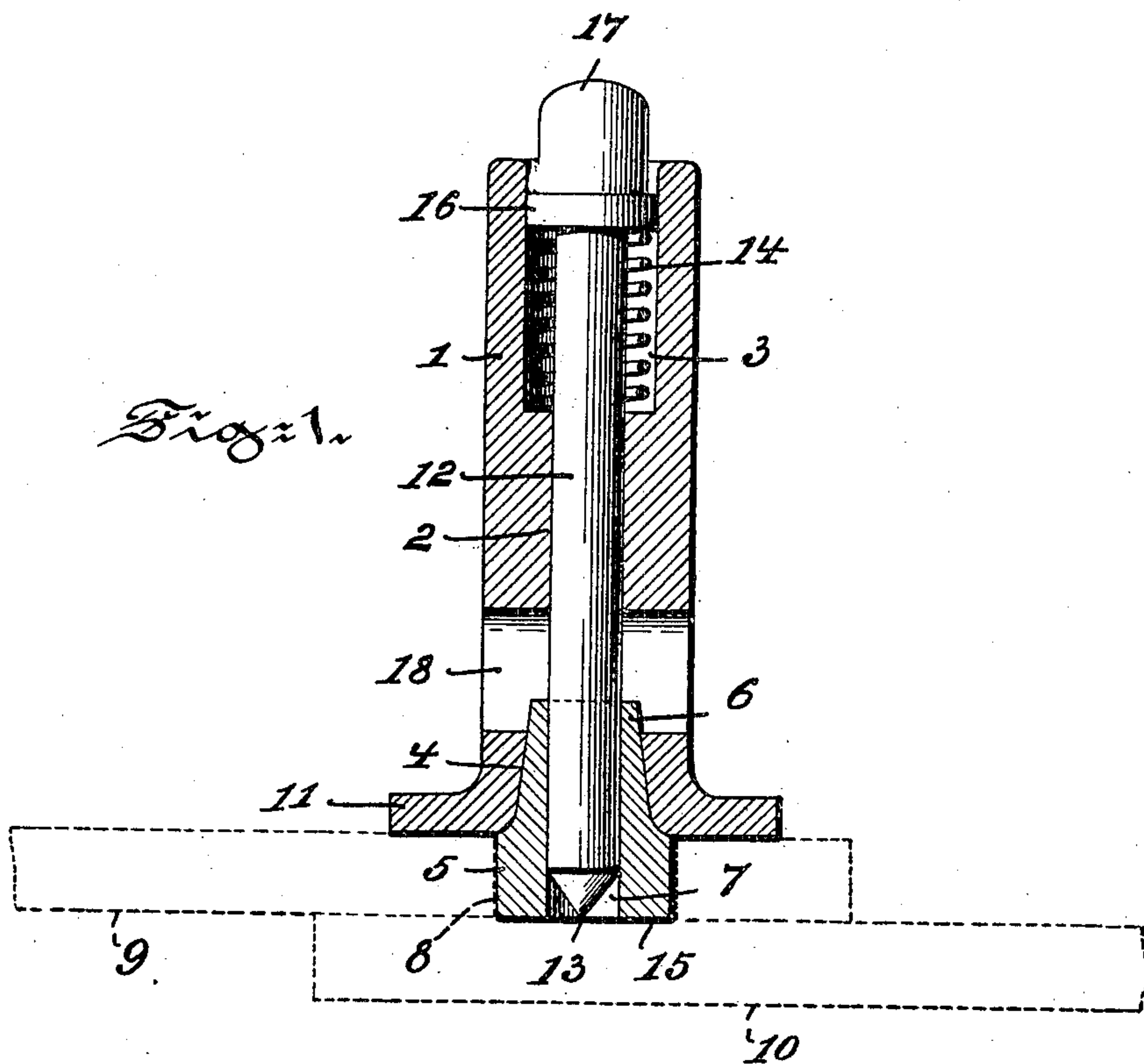


No. 837,690.

PATENTED DEC. 4, 1906.

D. A. LABUNSKI.
CENTER MARKING DEVICE.
APPLICATION FILED JULY 23, 1906.



WITNESSES:

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UNITED STATES PATENT OFFICE.

DONAT ANDREW LABUNSKI, OF CHICAGO, ILLINOIS.

CENTER-MARKING DEVICE.

No. 837,690.

Specification of Letters Patent.

Patented Dec. 4, 1906.

Application filed July 23, 1906. Serial No. 327,356.

To all whom it may concern:

Be it known that I, DONAT ANDREW LABUNSKI, a subject of the Emperor of Russia, residing at the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Center-Marking Devices, of which the following is a specification.

My invention has relation to a center-marking device especially adapted for structural metal-work, and in such connection it relates particularly to means removably connected with the device to render the same adaptable for marking the center of holes to be bored or punched of varying diameters.

The principal objects of my invention are, first, to provide a marking device with an interchangeable bushing to permit of the use of the device for marking centers of holes of a plate upon another plate or the like to be bored or punched in structural ironwork where such work is to be duplicated; second, to provide the holder for the bushing with a projecting base to insure holding of the same in a right-angular position to the plate the holes of which are to be duplicated in another plate, and, third, to provide the housing with a punch or bolt and with an opening to permit of the insertion of a tool for removing the bushing.

The nature and scope of my invention will be more fully understood from the following description, taken in connection with the accompanying drawings, forming part hereof, in which—

Figure 1 is a view illustrating in vertical central section the center-marking device embodying main features of my present invention; and Fig. 2 is a view illustrating in vertical section a bushing of a different diameter at the end to the bushing as illustrated in Fig. 1.

Referring to the drawings, 1 represents a housing with a central bore 2, terminating at the upper portion in a chamber 3 and at the lower portion in a tapering recess 4. In the recess 4 is removably arranged the tapered end 6 of a bushing 5, having a central bore 7, which when the bushing is inserted in the housing 1 forms a continuation of the bore 2 of the same. The bushing 5 is adapted to fit a previously drilled or punched hole 8 in a plate or templet 9, which hole is to be duplicated at the same point in a second plate or other piece of structural ironwork 10. In order to hold the bushing 5 in a vertical posi-

tion with respect to the plate 10, the housing 1 is provided with a laterally-extended base 11, which when resting upon the plate or templet 9 holds the bushing in required vertical position for marking the center of the hole of the plate 9 on the work 10. The marking of the work 10 is accomplished by a punch or bolt 12, the lower end of which tapers to a point 13, which is located in the central vertical axis thereof. The bolt 12 has a range of movement within the bore 2 of the housing 1 and is normally held by a spring 14 in a position in which the end 13 thereof is in alinement with the face 15 of the bushing 5 or is slightly raised above the same. The spring 14 is located within the chamber 3 of the housing 1, upon which it rests with one end, while the other end engages a flange 16 of the bolt 12, and thus holds the same in proper position within the housing 1. On the flange 16 of the bolt 12 is arranged a head 17, projecting above the housing 1, which by being struck by a tool serves to drive the bolt 12 downward in the housing 1. When the bushing is inserted in one of the holes 8 of the plate 9 which are to be duplicated in the work 10, the point 13 of the bolt 12 by being struck with a tool is driven into the work 10, thus marking the center of the hole 8 in this plate. As the bushing 5 is held in a position which is at a right angle to the work to be marked, it follows that the mark made by the tool 12 will be exactly in the center of the hole 8. If the bushing 5 used does not correspond with the diameter of the hole 8 which is to be reproduced in the work 10, the bushing can be readily removed from the housing 1 by inserting a suitably-shaped tool in the opening 18 thereof. Another bushing—for instance, such as shown in Fig. 2—may be inserted with its tapering end 6 in the recess 4 of the housing 1 for the purpose of centering and securely locking the housing 1 during marking of the work 10 to the plate or templet 9. However, it should be understood that the main object of my invention is to provide a device for marking the centers of holes of a piece of metal-work on another piece of metal-work, so as to insure the registry of the holes when the work is placed one above the other, as is essential in bridge, ship, and other structural ironwork.

I claim—

1. The combination of a plate having an opening, a housing having an outwardly-flaring base forming a support for the same, a

bushing removably arranged in the housing and fitting the opening in the plate and held in a right-angular position to the plate by the base of the housing resting on the plate, and
5 a bolt pointed at the lower end and fitting the housing and bushing, said bolt, when depressed in the housing, forming a depression in the plate to be marked centrally of the opening in said plate.

10 2. The combination of a plate having an opening, a housing having a slot, a bushing arranged in the housing and extending beyond the slot to permit of the removal of the same from the housing by a tool entering the

slot, a bolt arranged in the housing and bush- 15
ing, said housing arranged to hold the bushing in proper position in the opening of the plate, and said bolt arranged, when actuated, to form a depression in the plate to be marked centrally of the opening in said plate. 20

In witness whereof I have hereunto set my signature in the presence of two subscribing witnesses.

DONAT ANDREW LABUNSKI.

Witnesses:

SAMUEL NORKIN,
O. W. BECKER.