

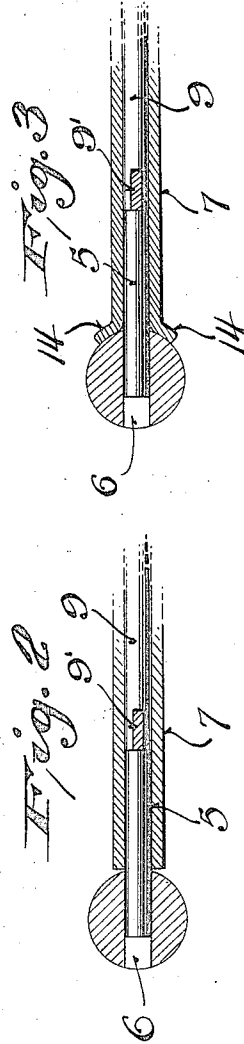
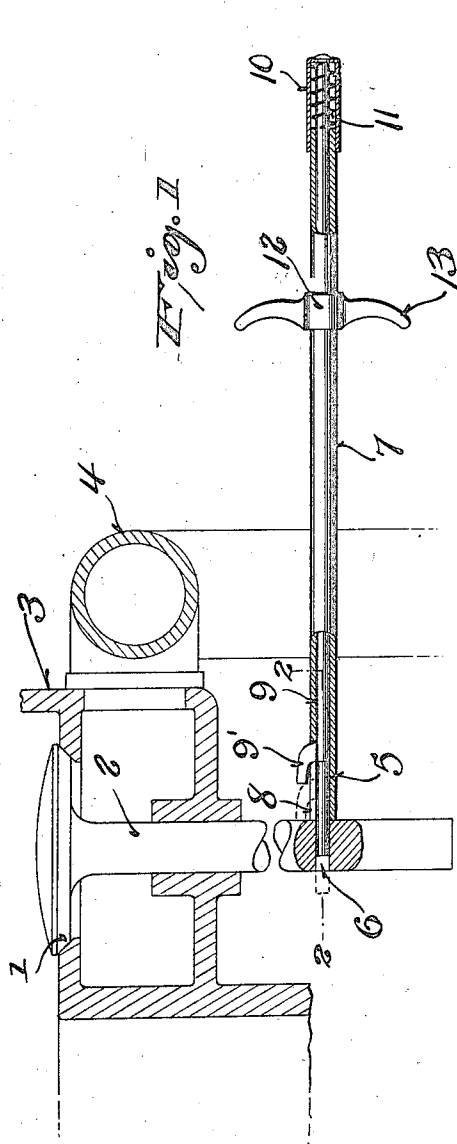
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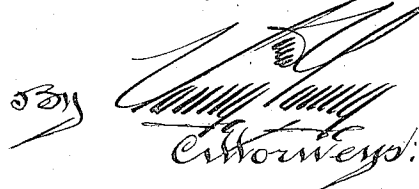
K. DAHM

VALVE PIN TOOL

Filed Feb. 9, 1923



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By 
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UNITED STATES PATENT OFFICE.

KURT DAHM, OF MILWAUKEE, WISCONSIN.

VALVE-PIN TOOL.

Application filed February 9, 1923. Serial No. 617,970.

To all whom it may concern:

Be it known that I, KURT DAHM, a citizen of the United States, and resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Valve-Pin Tools; and I do hereby declare that the following is a full, clear, and exact description thereof.

tion is illustrated in one of its applications in connection with the insertion of valve-stem pins, in which the numeral 1 designates a valve provided with the conventional stem 2 and mounted in the valve housing 3. The numeral 4 designates an obstruction such as the intake or exhaust manifold which, due to its position with relation to the valve stem, renders the latter inaccessible.

The present invention which is designed to overcome the difficulty of inserting the pin 5 in the opening 6 of the valve stem, comprises an elongated sleeve 7 having one end slotted at 8. Mounted within the sleeve 7, is a plunger 9 provided with an offset extension 9', which projects through the slot 8 and in the retracted position of the plunger, abuts the end of the slot and serves as a stop for the plunger. The opposite end of the plunger 9 extends past the end of the sleeve 7 and has secured thereto in any suitable manner, a cap or ferrule 10 which telescopes over the sleeve. Disposed between the ferrule and the end of the sleeve 7 is a spring 11 which normally urges the operative end of the plunger to its retracted position. Secured on the sleeve 7 in any suitable manner is a collar 12 provided with finger-grips 13 which enable the tool to be gripped by the first and second fingers, leaving the thumb free to project the plunger for the purpose hereinafter described.

In the operation of the device, which is comparatively simple, the pin 5 is inserted into the end of the sleeve 7 until it abuts the end of the plunger 9, in which position the pin projects slightly from the end of the tool, permitting the same to be inserted into the opening 6. The plungers then depress against the spring 11 by means of the thumb, thus ejecting the pin until the offset extension 9' engages the valve stem 2, upon which occurrence the pin is centrally positioned with relation to the valve stem.

In some instances, where the pin is to be inserted in a small stem or part, some difficulty may be encountered in properly aligning the tool with relation to the stem. Consequently in the modified form illustrated in Figure 3, a pair of lateral ears 14 are provided which engage the sides of the valve stem and overcome the foregoing objections.

From the foregoing, it will be seen that a very simple and inexpensive tool has been provided, which can be readily inserted in places inaccessible to the hands and conse-

15 This invention pertains to a tool for inserting pins into valve stems or similar parts, where the pin openings are inaccessible to the extent of rendering insertion by hand impossible or very difficult.

15 The primary object of the invention is therefore to provide a simple, inexpensive and efficient tool, of compact and elongated structure, to facilitate insertion of pins in inaccessible parts.

20 A further object is to provide an elongated tool adapted to receive a pin and provided with means for ejecting the same from the tool.

25 A more specific object is to provide a device of the above character with means for centering the pin with relation to the stem.

A still further object resides in the provision of means for properly aligning the tool with relation to the stem.

30 With the above and other objects in view, which will appear as the description proceeds, the invention resides in the novel construction, combination and arrangement of parts, substantially as hereinafter described and more particularly defined by the appended claims, it being understood that such changes in the precise embodiment of the herein disclosed invention may be made as come within the scope of the claims.

40 In the accompanying drawings is illustrated one complete example of the physical embodiment of the present invention, constructed according to the best mode so far devised for the practical application of the principles thereof.

In the drawings:

50 Figure 1 illustrates an elevational view of one form of the invention with parts broken away and in section to more clearly illustrate the structural details.

Figure 2 is a detail sectional view, taken on the line 2—2 of Figure 1, and

Figure 3, is a similar view illustrating a modified form of the invention.

55 Referring now more particularly to the accompanying drawings, the present inven-

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quently greatly facilitates the operation of inserting pins in valve stems or similar parts.

I claim:

- 6 1. A tool of the character described comprising a hollow sleeve adapted to receive a pin in one end, a plunger for ejecting the pin, and means carried by the plunger for centering the pin with relation to a valve stem.
- 10 2. A tool of the character described comprising a hollow sleeve provided with a slot at one end and adapted to receive a pin in said end, a plunger slidable in said sleeve,
- 15 an offset projection extending through the slot, and a spring for holding the plunger in retracted position.
3. A tool of the character described com-

prising a hollow sleeve adapted to receive a pin in one end, means carried by the sleeve 20 for aligning the same with a valve stem, a plunger slidable in said sleeve for ejecting the pin, and means carried by the plunger for centrally positioning the pin with relation to the valve stem.

4. A tool of the character described comprising a hollow sleeve adapted to receive a pin in one end, a plunger slidable within the sleeve for ejecting the pin, and means carried by the sleeve for aligning the same with 25 the valve stem.

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee, in the county of Milwaukee and State of Wisconsin.

KURT DAHM.