Aug. 2, 1938. F. G. BAUER 2,125,709

SURFACING TOOL

Filed July 2, 1936

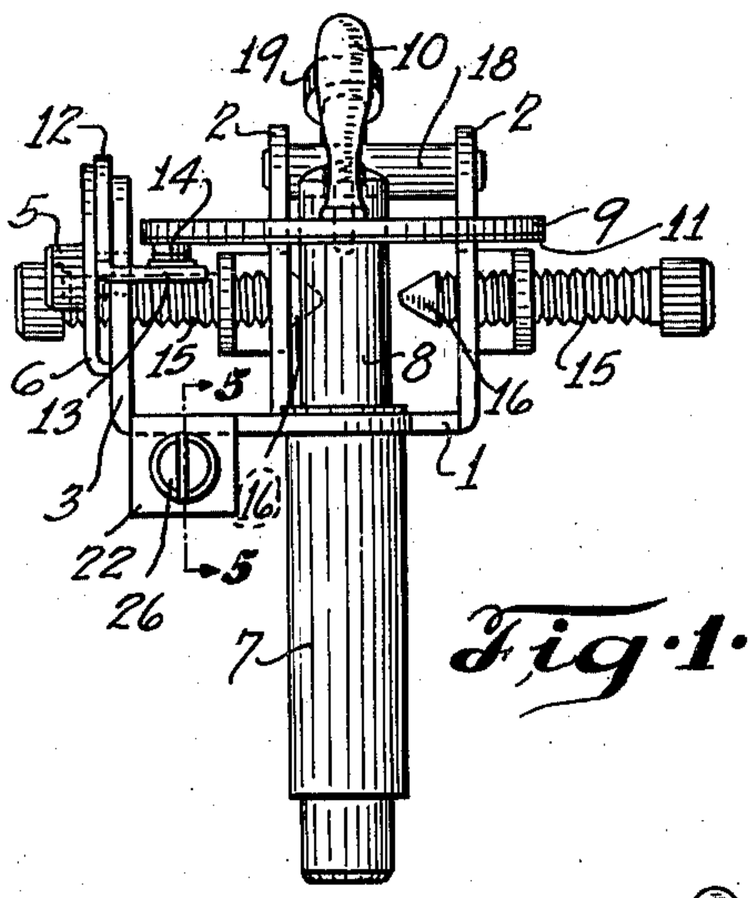

Fig. 1.

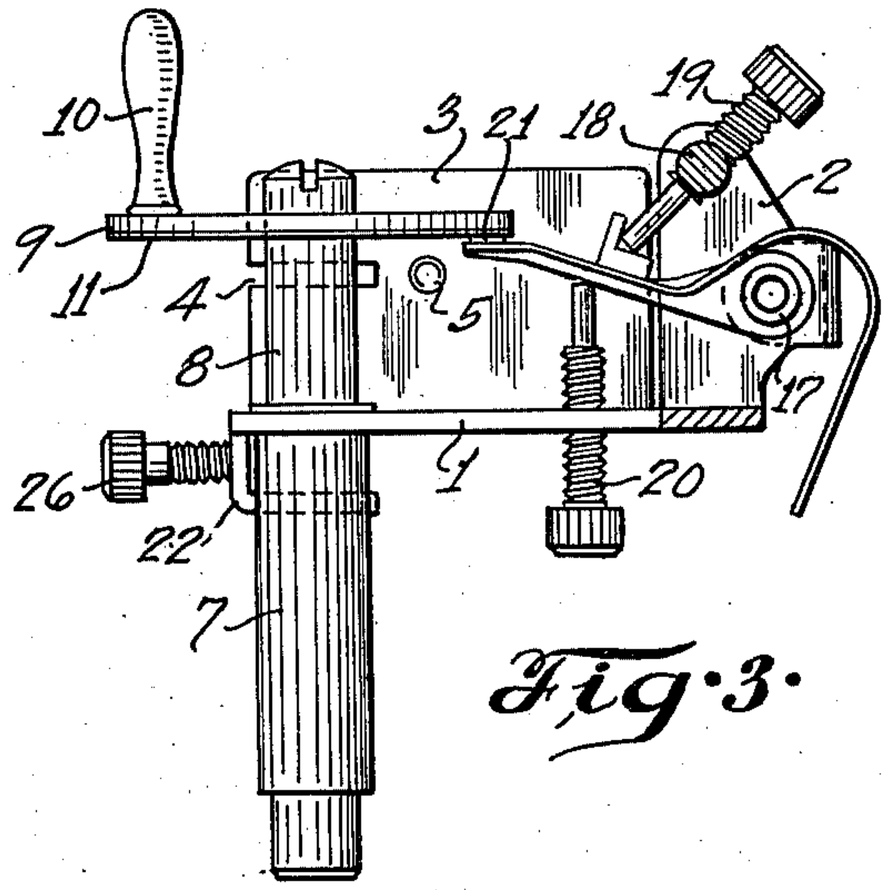

Fig. 3.

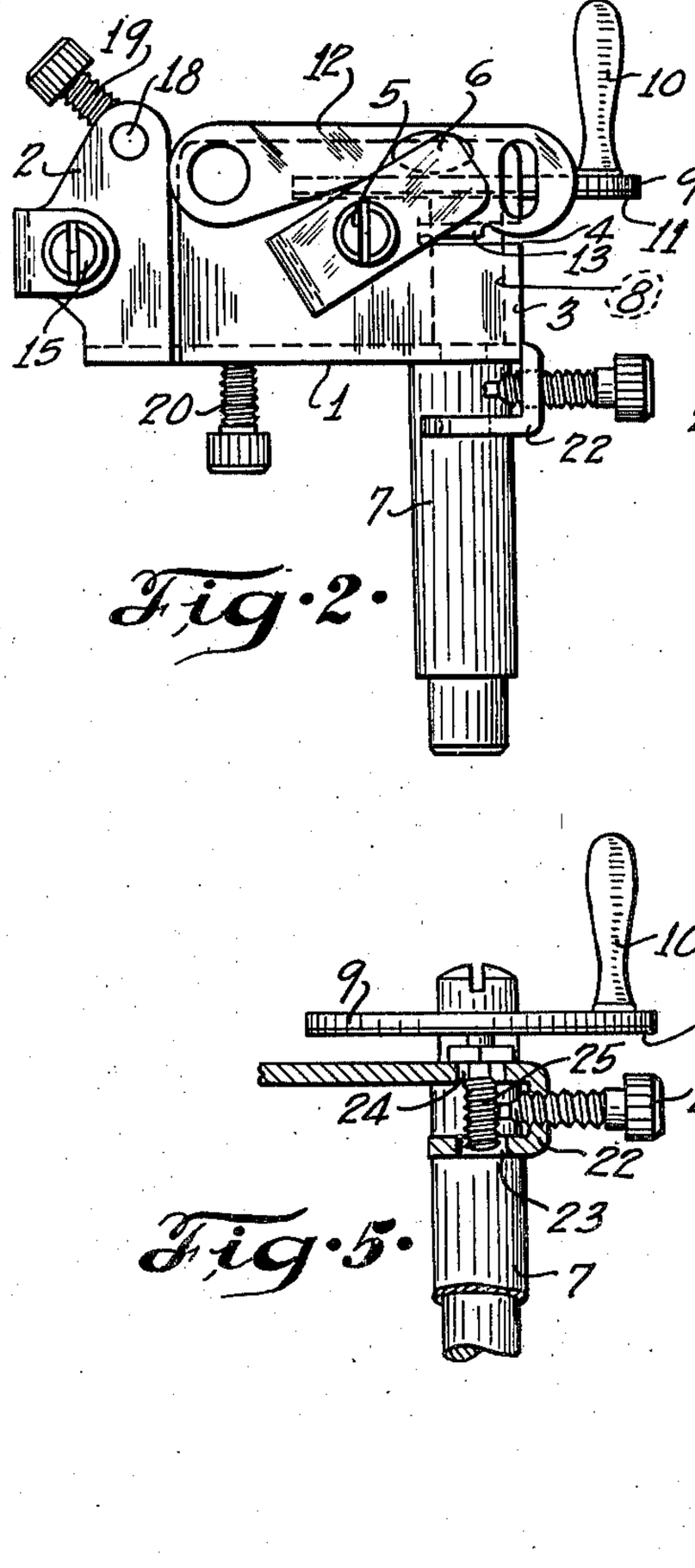

Fig. 2.

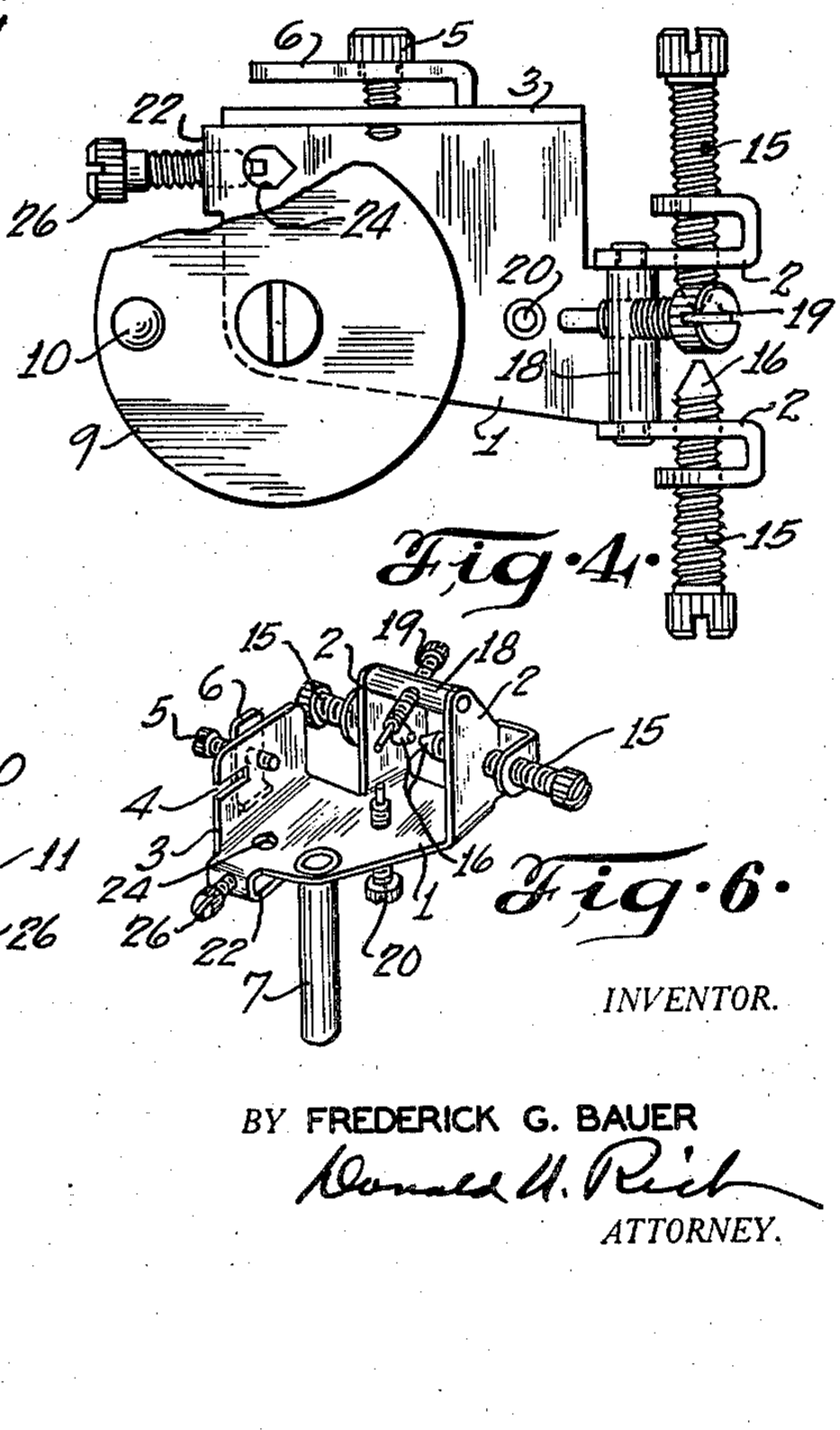

Fig. 4.

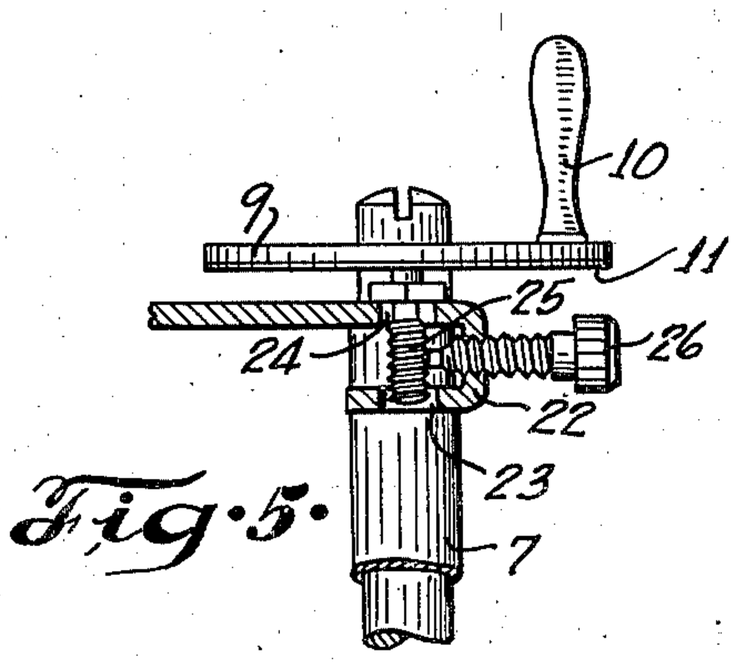

Fig. 5.

Fig. 6.

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SURFACING TOOL

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3 Claims. (Cl. 51—125)

This invention relates to means for resurfacing parts of members, particularly of the type wherein the member is pivotally carried at a point spaced from the part to be resurfaced, as, for instance, distributor points for automobile engines.

Devices now on the market for reconditioning distributor points grip the point adjacent the electrical contact element which is to be resurfaced. With such devices, accurate and secure positioning and holding of the work is difficult, if not impossible.

The main object of the present invention is to provide means for supporting work such as distributor points in a manner to accurately position and hold the electrical contact element with relation to the grinding mechanism.

Another object is to provide a novel device constructed and arranged for operating upon various types of distributor points.

The above objects and other more detailed objects hereafter appearing are attained substantially by the device illustrated in the accompanying drawing, in which:

Figure 1 is an end view of the device.

Figure 2 is a side view of the device.

Figure 3 is a view similar to Figure 2, but showing the opposite side.

Figure 4 is a top view of the device, a part being broken away for clearer illustration.

Figure 5 is a detail section taken substantially on line **5—5** of Figure 1, and

Figure 6 is a perspective view of the device.

As shown in the figures, the sheet metal work support portion of the device includes a horizontal base part **1** having upstanding leg elements **2** adjacent one end. A vertical side element **3** projects upwardly from another portion of the base element and has a slot **4**. A screw **5** mounted adjacent the slot supports the clamping member **6**.

A tubular part **7** depends from base element **1** and pivotally receives shaft **8** which, in turn, mounts a disk **9** having a handle **10**, and suitable conditioning material **11** on its under surface, such as emery paper. Slot **4** is arranged for receiving a rigid type distributor point, as shown in Figures 1 and 2, having a back part **12** which is gripped by clamp element **6** and a laterally projecting tongue **13** mounting electrical contact point element **14**. The slot and clamp element secure the point **14** accurately in position, as shown in Figure 1, to be reconditioned by the surfacing disk **9**, the shaft **8** being shifted in tubular bearing **7** to correspond.

Mounted in upstanding leg elements **2** are a pair of opposing coaxial clamping screws **15** having tapering points **16** adapted to be received in and to pivotally grip the apertured portion **17** of a different type of distributor point (see Figure 3). Extending between the upper portions of upstanding elements **2** is a bar **18** mounted upon axial pivots. A screw element **19** extends laterally through bar **18** and is disposed to cooperate with screw **20** mounted in base element **1** to position and hold the member about the pivotal clamping screws **15**. By means of screws **19** and **20**, the point may be accurately adjusted with relation to the pivotal center **17** thereof so as to secure the electrical contact element **21** in the correct relation with surfacing disk **9**.

The movable distributor points, as shown in Figures 1, 2, and 3, are ordinarily used in connection with stationary points as shown in Figure 5. For reconditioning this type of point, a re-entrant lip **22** bent downwardly from base element **1** is provided with a hole **23**, cooperating with a hole **24** in the base element to receive stationary point **25**. A screw **26** is provided for securing the point in position to be resurfaced by the disk **9**.

Thus, it will be seen, I have provided a simple, convenient device for accurately positioning and holding the distributor points for operation thereon by a resurfacing tool. The point is gripped principally at its pivotal center and is accurately positioned by clamping elements spaced therefrom. The device is extremely flexible in operation and also durable, due to the fact that means is provided for compensating for slight wearing of the parts as well as for accommodating various types of points. Various parts of the device may be modified as will occur to those skilled in the art so as to accommodate different types and shapes of distributor points than those shown. The exclusive use of all such modifications as come within the scope of the appended claims is contemplated.

I claim:

1. A compact, unitary device of the class described comprising a support including a base having projecting parts, opposed clamping screws mounted on said parts for pivotally gripping the work at its pivotal axis, other clamping members carried respectively by said base and at least one of said parts, said members being disaligned from said screws for positioning and holding the work about said axis, and surfacing means carried by said support adjacent said clamping members.

2. A compact, unitary device of the class de-

scribed comprising a support including a four-sided part with one transverse member mounted on an axial pivot, the other transverse member extending laterally beyond the sides of said part, a grinding wheel pivotally mounted on said laterally extending member, axially aligned screws in the sides of said part and having tapered opposing ends for pivotally gripping the work, and means for positioning and holding a portion of the work spaced from the part gripped by said screws for operation thereon by said surfacing member, said means comprising a clamping screw mounted in said pivoted transverse member, and a second screw mounted in said laterally extending transverse member.

3. A portable conditioning unit for ignition points comprising a support, tapered gripping elements on said support for pivotally mounting a point about its pivotal axis, said elements being movable toward each other to provide a stable pivotal support, clamping means spaced from said tapered gripping elements for positioning and holding the point about said axis, and a manual grinding wheel carried by said support adjacent said clamping means.

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