

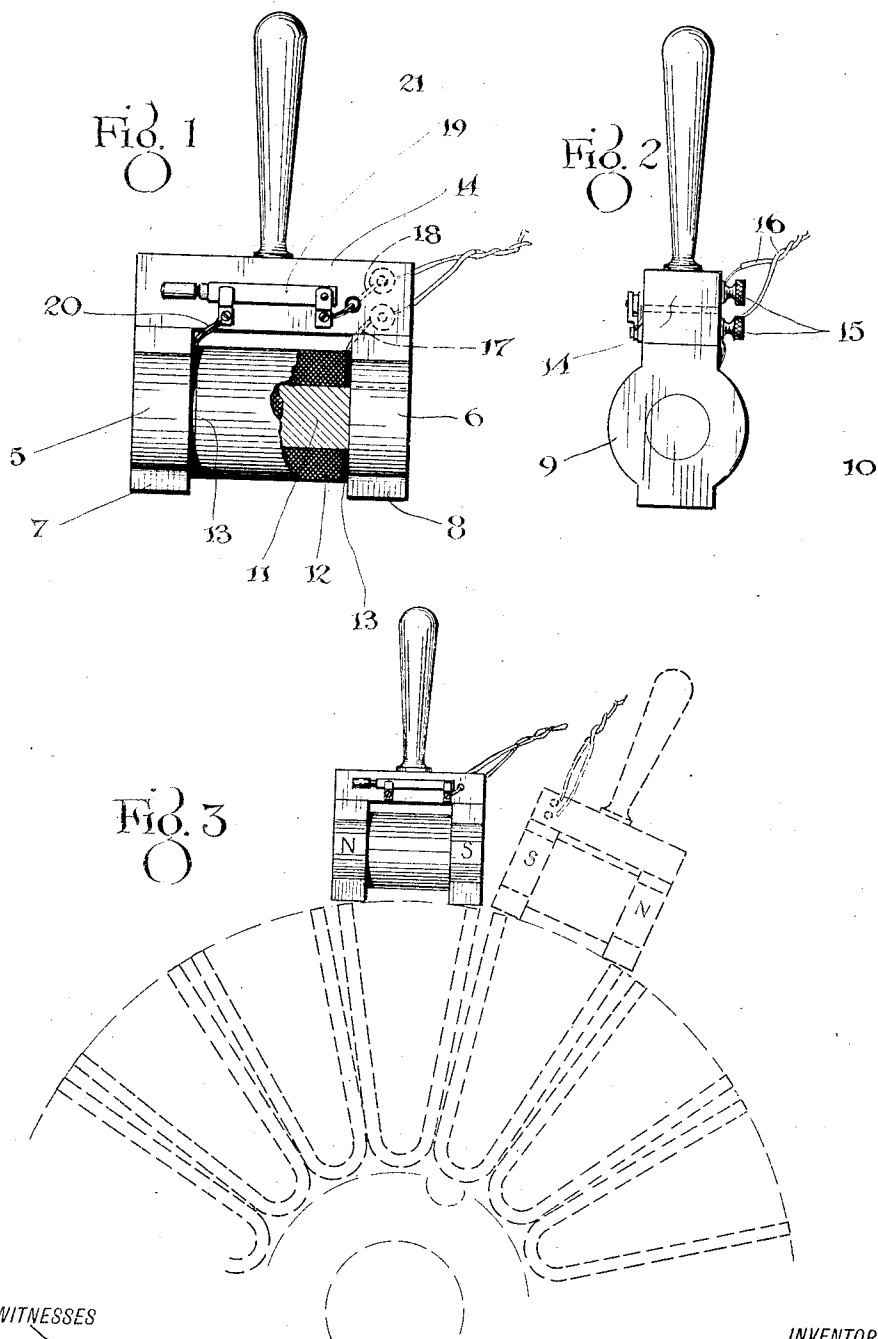
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REMAGNETIZING APPARATUS.

FILED Nov. 12, 1920.



WITNESSES

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UNITED STATES PATENT OFFICE.

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REMAGNETIZING APPARATUS.

Application filed November 12, 1920. Serial No. 423,718.

To all whom it may concern:

Be it known that I, JOSEPH CLIFFORD BENNER, a citizen of the United States, and a resident of Webb City, in the county of Jasper and State of Missouri, have invented certain new and useful Improvements in Remagnetizing Apparatus, of which the following is a specification.

The present invention relates to remagnetizing apparatus.

The object of the invention is to provide an apparatus of this character having poles adapted to directly engage the poles of the magnet to be charged and of such construction as to be capable of this direct arrangement without taking down or removing the magnets operated upon from the structure with which they are associated, being especially adapted to directly engage the poles of the magnets of the Ford magneto and to effectively and efficiently remagnetize these permanent magnets while they are in position on the machine.

Another important object is to provide an apparatus of this character of simple, durable and safe construction, reliable in practice and easily manipulated to exercise these functions.

Other objects and advantages of the invention reside in certain novel features of construction, combination and arrangement of parts which will be hereinafter more fully described and particularly pointed out in the appended claims, reference being had to the accompanying drawings in which:

Figure 1 is a side elevation of the apparatus, parts being shown in section for the purpose of illustration;

Figure 2 is an end elevation; and

Figure 3 is an elevational view, showing the apparatus in operation during the remagnetizing of the magnet of the magneto of the Ford type.

Referring to the drawings wherein there is shown a preferred embodiment of the invention, the numerals 5 and 6 designate the members of a pair of spaced bars of magnetic material. These bars have their outer free ends adapted to constitute the poles of the apparatus, as indicated at 7 and 8. Intermediate their ends each of the bars are provided with a circular enlargement 9 having a central opening 10 formed therein and constituting a bearing. A bridge bar 11 of magnetic material extends between the spaced bars 5 and 6 and its

ends are received and retained in the bearings formed by the openings 10 of the enlarged portions of the spaced bars.

A coil 12 is arranged upon the bridge bar 11 and disks 13 of insulating material are disposed upon the bridge bar 11 between the ends of the coil and the adjacent portions of the spaced bars 5 and 6.

An end cross bar 14 of non-magnetic and insulating material extends across and connects the inner ends of the spaced bars 5 and 6, the inner ends of course being the ends opposite the poles 7 and 8. Binding posts 15 are arranged upon one of the side faces of the end cross bar 14 to receive the leads 16 from any suitable source of current (not shown). From the positive binding post, a conductor is arranged to carry the current to the coil 12. This conductor comprises a section 18 of wire which leads from the positive binding post to one of the terminals of the single throw knife switch 19 and the other terminal of this switch is connected by a section 20 of wire to the coil 12. A wire 17 leads from the coil to the negative binding post. It is obvious that when the leads 16 are connected to a source of current and the switch 19 is closed, as seen in Figure 1, the current flows through the coil to energize the apparatus. The bridge bar 11 in this arrangement performs two functions in that it supports the coil 12 and provides a path for the magnet flux.

A handle 21 of insulating material is carried by the top face of the end cross bar 14.

In practice, the apparatus is grasped by the handle 21 and the poles 7 and 8 of the apparatus are then disposed directly against the poles of the magnet to be energized, as seen in Figure 3. It is to be understood that the north pole of the apparatus is disposed against the south pole of the magnet to be charged and vice versa. The switch 17 is then closed to energize the magnet. After the required interval the switch 19 is open and the apparatus is then applied to the next adjacent magnet, the operation repeated, and this cycle is carried out until all of the magnets of the magneto have been re-energized.

I claim:

1. A remagnetizing apparatus of the character described comprising a pair of spaced bars of magnetic material having their free ends adapted to constitute the poles of the apparatus to directly engage the

poles of the magnet to be charged, each of
said spaced bars having a portion inter-
mediate its ends enlarged and provided with
an opening constituting a bearing, a bridge
5 bar of magnetic material extending between
said spaced bars intermediate the ends and
having its ends supported each in a respec-
tive bearing of the spaced bars and thereby
magnetically connected with the spaced
10 bars, a coil arranged upon said bridge bar,
and an end cross bar of insulating and non-
magnetic material connecting the ends of
said spaced bars opposite the poles of the
apparatus.

15 2. A remagnetizing apparatus of the

character described comprising a pair of
spaced bars of magnetic material having
their outer free ends adapted to constitute
the poles of the apparatus to directly engage
the poles of the magnet to be charged, a 20
bridge bar of magnetic material extending
between said spaced bars intermediate the
ends thereof and magnetically connected to
said spaced bars, a coil arranged upon said
bridge bar, an end cross bar of insulating 25
and non-magnetic material connecting the
ends of the spaced bar opposite the poles
thereof, and a handle of insulating material
carried by said end cross bar.

JOSEPH CLIFFORD BENNER.