A. R. MOSLER.

TERMINAL FOR ELECTRIC WIRES.

APPLICATION FILED NOV. 19, 1908.

954,872. Patented Apr. 12, 1910.

Fig. 2.

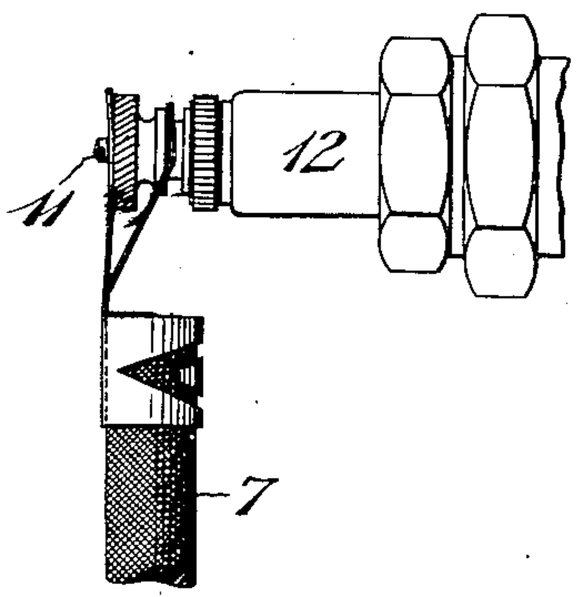


Fig. 1.

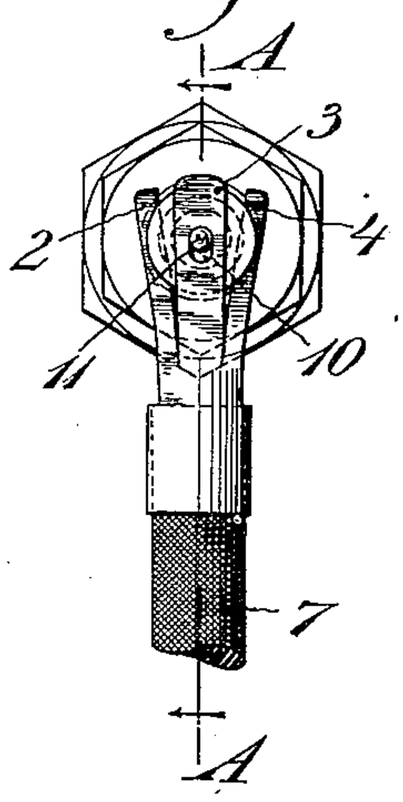


Fig. 3.

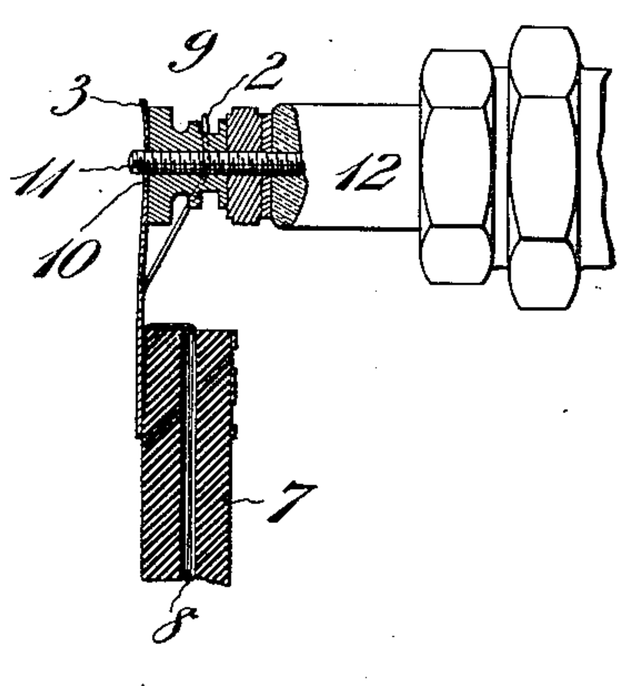


Fig. 4.

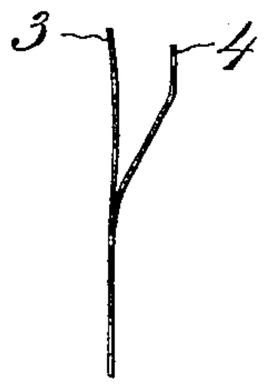
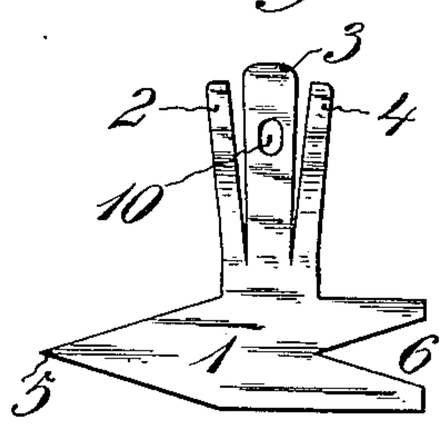


Fig. 5.



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UNITED STATES PATENT OFFICE.

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TERMINAL FOR ELECTRIC WIRES.

954,872. Specification of Letters Patent. Patented Apr. 12, 1910.

Application filed November 19, 1908. Serial No. 463,472.

To all whom it may concern:

Be it known that I, ARTHUR R. MOSLER, a citizen of the United States, and resident of the borough of Manhattan, in the city and State of New York, have invented a new and useful Improvement in Terminals for Electric Wires, of which the following is a specification.

My invention relates to electric wire terminals and has for one object to provide a terminal which can be automatically attached to a spark plug by a single movement but which cannot be accidentally detached, but must be manually detached.

Another object is to provide a terminal which will engage the plug at several different places and thus insure a perfect contact.

A further object is to provide a terminal which is very easy to pack and ship in large numbers and which may be applied for use by any person in the most simple manner.

A practical embodiment of my invention is shown in the accompanying drawings in which—

Figure 1 is an end view of a spark plug, showing the terminal attached thereto and to one end of a wire, Fig. 2 is a detail side view of the parts shown in Fig. 1, Fig. 3 is a section taken in the plane of the line A—A of Fig. 1, looking in the direction of the arrows, part of the spark plug being shown in side elevation, Fig. 4 is an edge view of my terminal with the body portion extended, and Fig. 5 is a plan view of the same.

My terminal is formed from a single blank of electricity conducting sheet metal and comprises a body 1 and the fingers 2, 3, 4. The body portion 1 is provided at one end with a point 5 and at the other end with a notch 6. This body portion is non-elastic so that it will remain in position when bent around the insulated covering 7 of the wire 8. The point 5 is intended to be embedded in the wire insulation for firmly securing the terminal thereto, while the notch 6 is provided to allow the body of the terminal to wrap more than one full turn around the wire insulation and thus be held more firmly thereon. The fingers 2, 3, 4, are elastic. This elastic quality may be readily obtained by tempering the metal of the fingers. The finger 3 is substantially in a plane with the body portion, before the latter is bent, but flares slightly at its outer extremity. The fingers 2 and 4 project at an angle from the plane of the finger 3, except as to their outer ends, which are bent so as to be substantially parallel with the finger 3. Fingers 2 and 4 are practically parallel throughout their length. The flare at the end of finger 3, the departure of fingers 2 and 4 from the plane of finger 3 and the bend at the ends of fingers 2 and 4 are all for the purpose of facilitating the engagement of the terminal with and its gripping of the outer plug nut 9. Finger 3 is also provided with a hole 10 for engaging the projecting end of the conducting wire 11 of the spark plug 12.

When it is desired to put the terminal into use, the wire insulation 7 is cut away for a distance from the end of the wire 8 and the wire is then folded back upon the outside of the insulation, as shown in Fig. 3. Then the body portion 1 of the terminal is bent around the wire insulation so as to engage the folded back portion of the wire, and clamped into position thereon, the point 5 being embedded in the insulation. This makes the terminal ready for use in connecting the wire to the plug, and the operation thereof is as follows. The terminal is brought endwise against the outer end of the spark plug, so that the finger 3 engages the outer face of the nut and the fingers 2 and 4 engage an inner face thereof. The terminal is then pushed forward, and the slight flare on the end of finger 3 causes the said finger to ride up on the end of the conducting wire 11. The tendency of the finger 3 to return to its normal position will cause it to snap down into engagement again with the outer face of the outer plug nut 9, when the hole 10 registers with the conducting wire 11. The terminal is then automatically locked in position absolutely against accidental displacement, as it cannot be removed without first lifting the finger 3 from its interlocking engagement with the end of the conducting wire.

What I claim is:

1. A terminal having a plurality of fingers of elastic material for automatically attaching the terminal to a spark plug, one of said fingers being provided with means for locking the terminal to the plug.

2. A terminal having a plurality of fingers of elastic material for automatically attaching the terminal to a spark plug, one of said fingers being provided with a hole for engaging the conducting wire of the plug, for locking the terminal to the plug.

3. A terminal formed from a single blank of sheet metal and having a plurality of fingers of elastic material, for automatically attaching the terminal to a spark plug, one of said fingers being provided with means for locking the terminal to the plug.

4. A terminal formed from a single blank of sheet metal and having a plurality of fingers of elastic material for automatically attaching the terminal to a spark plug, one of said fingers being provided with a hole for engaging the conducting wire of the plug, for locking the terminal to the plug.

5. A terminal having three fingers, the two outer fingers being substantially parallel and diverging from the intermediate finger, whereby the two outer fingers may engage the inner face of the spark plug nut and straddle the spark plug conducting wire, and the intermediate finger may engage the outer face of the spark plug nut, the said intermediate finger being provided with a hole fitted to receive the outer end of the conducting wire for locking the terminal to the plug.

6. A terminal having three fingers, the two outer fingers being substantially parallel and diverging from the intermediate finger, whereby the two outer fingers may engage the inner face of the spark plug nut and straddle the spark plug conducting wire and the intermediate finger may engage the outer face of the spark plug nut, the said intermediate finger being provided with a hole fitted to receive the outer end of the conducting wire for locking the terminal to the plug, the outer ends of the said outer fingers being bent so as to be substantially parallel with the intermediate finger for providing a better seating of the terminal on the spark plug nut.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two witnesses, this twenty-second day of October 1908.

ARTHUR R. MOSLER.

Witnesses:

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C. L. LUNDGREN.