G. H. REMPES.

TEST CLIP.

APPLICATION FILED JAN. 16, 1917.

1,351,343.

Patented Aug. 31, 1920.

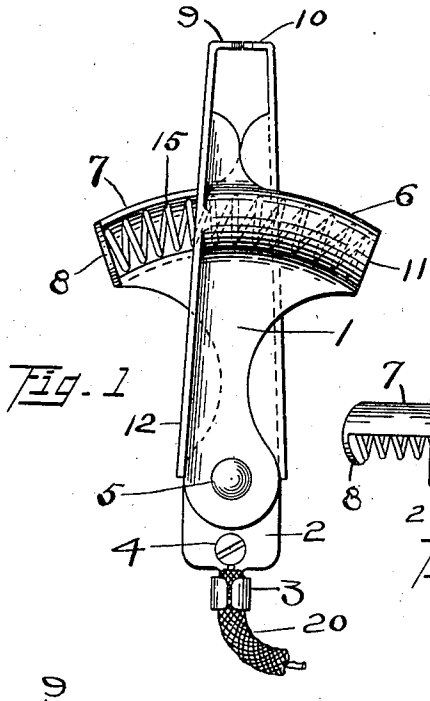


Fig. 1

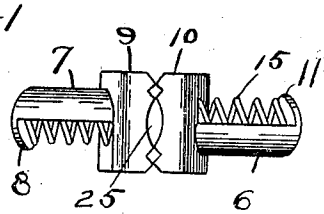


Fig. 3

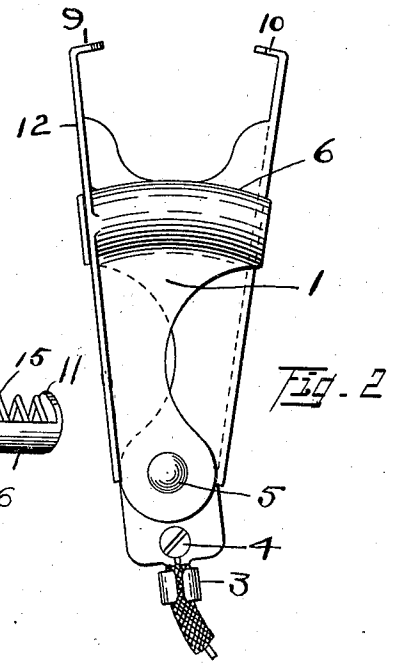


Fig. 2

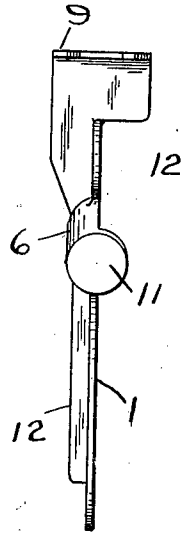


Fig. 5

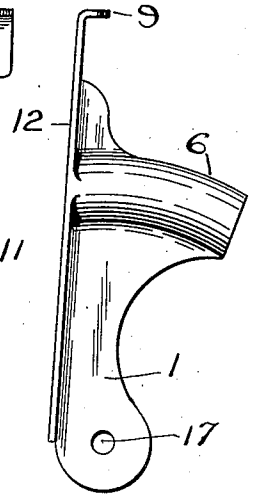


Fig. 6

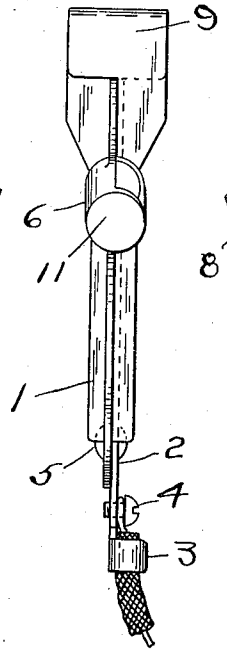


Fig. 4

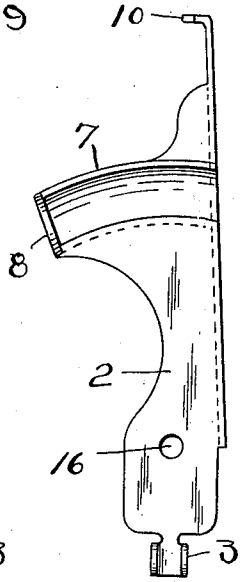


Fig. 7

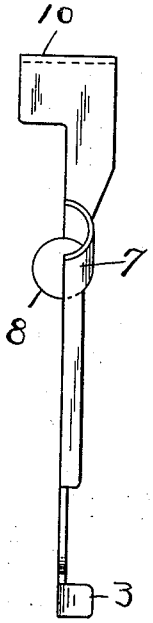


Fig. 8

Inventor

George H. Rempes

Joseph L. Wright

Atty.

UNITED STATES PATENT OFFICE.

GEORGE H. REMPES, OF CLEVELAND, OHIO.

TEST-CLIP.

1,351,343. Specification of Letters Patent. Patented Aug. 31, 1920.

Application filed January 16, 1917. Serial No. 142,639.

To all whom it may concern:

Be it known that I, GEORGE H. REMPES, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Test-Clips, of which the following is a specification.

My invention relates to test clips or battery clamps. The device is particularly adapted to be used as a battery clamp for making temporary connections with terminals or battery lugs.

The device is designed so as to be efficient in its operation and to withstand the action of the acid fumes from the batteries.

The device as designed comprises two pieces of sheet metal stamped or formed in such a manner that they can readily be held together by a simple rivet and when held together in such a manner to support a suitable spiral spring for maintaining the jaws in engagement.

The device is preferably treated with a coating of lead to protect the metal from the acid fumes.

My invention is illustrated in the accompanying drawings, wherein:

Figure 1 is a plan view of the assembled device in its normal position.

Fig. 2 is a plan view with the jaws spread apart.

Fig. 3 is an end view of Fig. 1.

Fig. 4 is a side view of Fig. 1.

Figs. 5 and 6 show details of one of the clamping members.

Figs. 7 and 8 show the details of the other clamping members.

Referring to Figs. 1, 2, 3 and 4, it will be seen that the assembled device consists of the clamping member 1 shown in detail in Figs. 5 and 6 and the clamping member 2 shown in detail in Figs. 7 and 8. Each of these members is provided with an opening 17 and 16 respectively for receiving the pivot bearing or rivet 5 and also with the recesses 6 and 7 for supporting or housing the spiral spring 15. The only difference between the two members 1 and 2 is that member 2 is provided with an extension 3 for attaching an electrical conductor 20.

The members are caused to assume the forms shown in Figs. 5, 6, 7 and 8 by a suitable punching or forming process after the blanks of sheet metal are stamped out. The recesses 6 and 7 are provided respectively with the lips 11 and 8 against which the ends of the spiral spring rest under tension as shown in Figs. 1 and 3. Each member is provided with a turned over portion 10 and 9 respectively which serve as jaws to grip an electrical conductor. Under tension of the spring 15 the jaws are held in engagement as shown in Fig. 1.

In order to separate the jaws it is only necessary to press against the ends or lips 8 and 11. Pressure being brought to bear at these points compresses the spiral spring 15 and causes the jaws 9 and 10 to separate as shown in Fig. 2.

It will be noted by referring to Figs. 5, 6, 7 and 8 that the members are substantial and rigid in construction and are practically indestructible.

When the jaws are spread apart as shown in Fig. 2, the spiral spring 15 is fully protected from the acid fumes arising from the ordinary storage battery. By providing a spiral spring in the manner shown the pressure throughout the spring is uniform and will not be readily crystallized due to the action of the acid or gas from the battery.

The recesses for holding the spiral tension spring conform to an arc of a circle using the pivot bearing as a center.

The pins or turned up edges 12 form a continuation of the jaws proper. The jaws of the members lie directly opposite each other. Referring particularly to Fig. 3 it will be noted that each jaw is provided with a curved recess 25 for gripping a battery lug or terminal.

The test wire or conductor 20 is connected and held in place either by the screw 4 or soldered to the tip 3.

Having thus described my invention what I desire to secure by Letters Patent is:

1. In a device of the class described the combination of two clamping members having a rear pivot bearing about which they move, each of said members being provided with a curved groove conforming to an arc of a circle having the pivot bearing as a center, each of said grooves being provided with an ear, a spiral spring, said grooves serving to hold said spring while said spring serves to bear against said ears for maintaining said members in engagement.

2. In a device of the class described, the combination of two rearwardly pivoted clamping members provided with jaws arranged to be distended to grip an electrical conductor, a semi-circular depression formed

in each of said members for supporting a spiral tension spring, said spring serving to maintain said jaws in engagement, said depressions partially housing said spring when said jaws are in engagement and to practically house said spring when said jaws are distended.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE H. REMPES.

Witnesses:
H. POLATSEK,
R. E. FEIN.