H. R. BOISSIER.

ANODE AND ANODE HOOK.

APPLICATION FILED MAY 9, 1913.

1,091,185.

Patented Mar. 24, 1914.

Fig. 1.

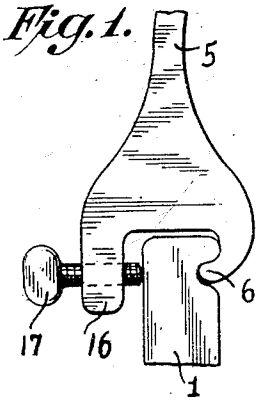


Fig. 2.

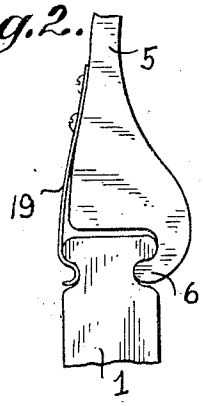


Fig. 3.

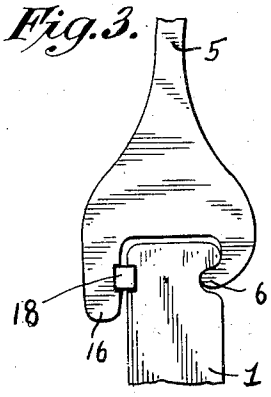


Fig. 4.

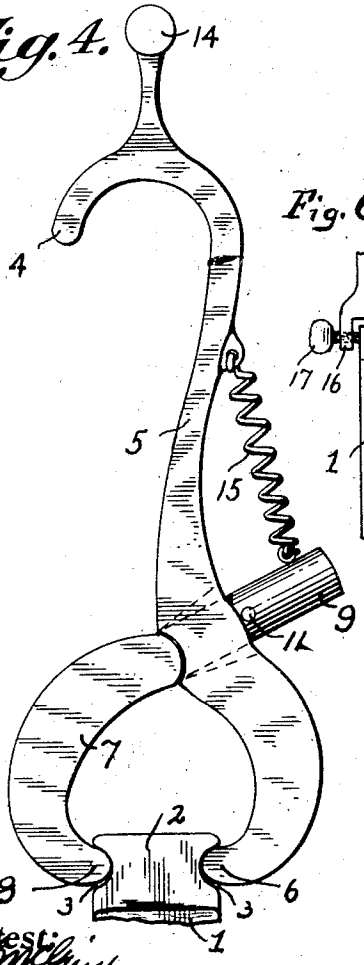


Fig. 6

Fig. 7



Fig. 5.

Fig. 8

Attest:

T. O. Mackinson

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by F. Amos Johnson Atty.

UNITED STATES PATENT OFFICE.

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ANODE AND ANODE-HOOK.

1,091,185. Specification of Letters Patent. Patented Mar. 24, 1914.

Application filed May 9, 1913. Serial No. 766,607.

To all whom it may concern:

Be it known that I, HERMANN R. BOISSIER, a citizen of the United States, and a resident of Great Neck, in the county of Nassau and State of New York, have invented a new and useful Form of Anode and Anode-Hook, of which the following is a specification.

My invention relates to anodes and supporting hooks for the same.

The anodes are so formed and the supporting hooks are so designed that anodes of different size or material may be quickly substituted one for the other and when the anodes are worn out a new one may be quickly substituted. By my invention I also secure the best possible connection between the anode and its hook and the construction is such that the contact surfaces may be readily examined and cleaned if necessary. I accomplish this result by forming the anode and the anode hook with coacting male and female surfaces, of preferably tongue-and-groove variety, and I provide a means for clamping these surfaces together which holds tightly and which is easily and quickly releasable to permit the coacting surfaces to be disengaged.

Referring to the accompanying drawings: Figure 1 is a side elevation of a portion of an anode and a portion of an anode hook, showing one means of making the connection between them; Figs. 2 and 3 are similar views of similar parts, showing other methods of making the connections; Fig. 4 is a side elevation of an anode hook and a portion of an anode, of an alternative construction; Fig. 5 is a side elevation of an anode hook and a portion of an anode, of preferred construction; Figs. 6 and 7 are side and front elevations respectively of a portion of anode and anode hook of still another construction, and Fig. 8 is a perspective view of a complete anode.

The anode 1 is formed with a neck or lug 2 which has a pair of horizontal side grooves 3. The anode hooks are formed with a hooked portion 4 and a stem 5, the lower end of which serves as a fixed jaw having a horizontal edge 6 which acts as a tongue and fits one of the grooves 3. There is an opposite swinging jaw 7 which has an edge tongue 8 which enters the opposite groove 3. The swinging jaw has a projecting shank 9 which passes through a slot 10 in the stem of the anode hook, where it is held by a pin 11. A thumb screw 12 is mounted in a lug 13 on the outside of the fixed jaw and is adapted to bear against the outer end of the shank 9 of the swinging jaw 7. By this means the anode may be firmly clamped by the neck portion and a good contact maintained between the anode and its hook. It will be readily seen from this construction that there is very little waste to an anode, as only the neck portion is out of the solution and this is reduced in size to the minimum amount necessary to support the anode and carry the current; and it is equally obvious that one anode may be substituted for another by simply loosening the thumb screw and putting in a new anode and tightening the screw.

For convenience in casting the anodes the grooves 3 are preferably made as shown in Figs. 5 and 8, from the face to the back of the anode, which makes it desirable to give the stem a quarter turn as shown in Fig. 5. A handle 14 of ordinary form is shown for lifting purposes.

While the form of anode and anode hook just described is to be preferred, the construction is capable of various modifications and embodiments.

In Fig. 4 I have shown an anode hook without the twisted stem and the grooves 3 cut in the face and back of the anode and a spring 15 is used instead of the thumb screw to lock the jaws. When the anodes are light this method is quite satisfactory.

In Fig. 1 I have shown the anode stem 5 with a lug 16 and a thumb screw 17 passing through it directly against the neck of the anode, without the interposed swinging jaw.

Fig. 3 shows a construction quite similar to that of Fig. 1, but with a key 18 for locking the anode instead of the screw 17. This key may be straight as shown or slightly tapering.

Fig. 2 shows a leaf spring 19 for holding the anode and its hook together.

Figs. 6 and 7 show another way of getting coacting surfaces between the anode and anode hook in which a dowel pin 20 is used—otherwise the construction is quite similar to that of Fig. 1.

In all the various constructions which I have shown it will be noted that the surfaces between the anode and its hook are coacting or male and female and that the

surfaces are clamped together by means which is easily releasable to permit the coacting surfaces to be disengaged. It will also be understood that in every case the construction could be reversed, the male portion being carried by the anode and the female portion being carried by the anode hook.

What I claim is:

1. An anode hook comprising a hook portion and a stem portion—said stem being formed into a jaw at its bottom end; a swinging jaw having a projecting shank—said shank being secured in a slot in said stem and a screw mounted on said stem and adapted to bear against the shank portion of said swinging jaw to force said jaws together to clamp an anode.

2. An anode comprising a body portion and a narrow neck portion—said neck portion being provided with a pair of horizontal front-and-rear grooves, in combination with an anode hook for supporting said anode—said anode hook being formed with a hook portion and a stem portion, said stem portion being given a quarter turn and having a pair of jaws at its lower end which are adapted to engage the said anode in said horizontal grooves and means for clamping said jaws together to grip and support said anode.

3. An anode formed with a narrow neck or supporting lug, in combination with an anode hook or support—said support being formed with a pair of jaws, said jaws having tongue-and-groove connections with said neck portion of said anode and means for clamping said jaws together to hold and support said anode.

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

HERMANN R. BOISSIER.

Witnesses:
JOSEPH H. BAKER,
EDGAR BOISSIER.