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 AUTOMATIC CABLE ATTACHER FOR SALVAGE WORK.
 APPLICATION FILED MAY 13, 1918.

1,289,957.

Patented Dec. 31, 1918.

Fig. 1.

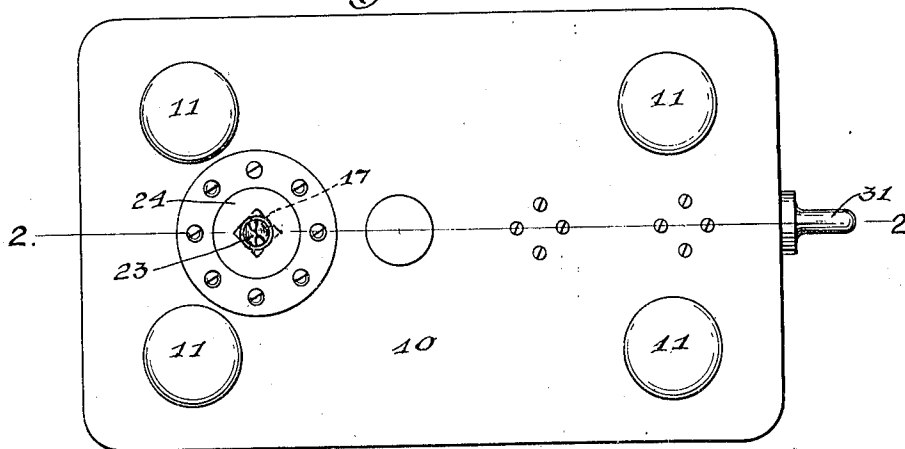


Fig. 3.

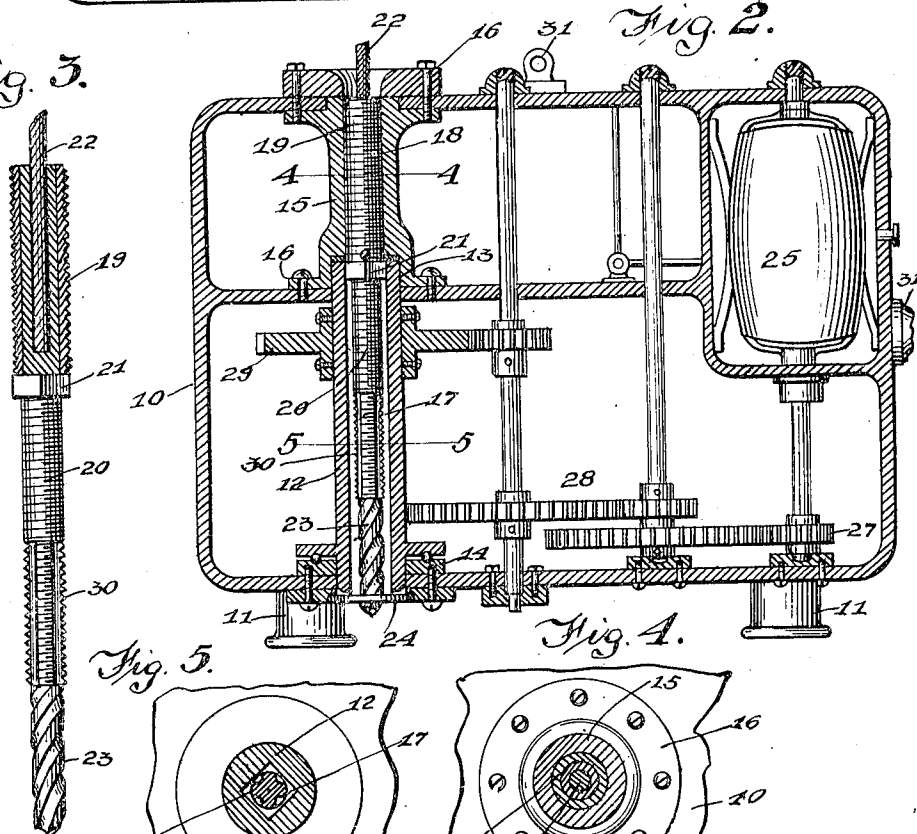
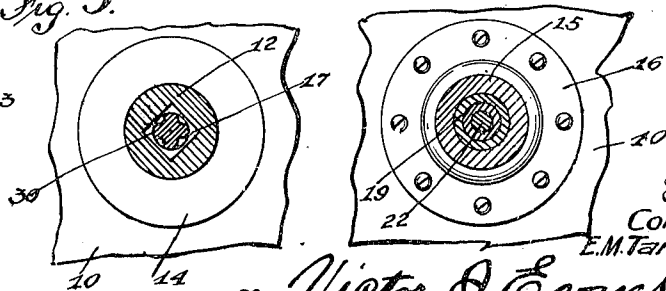


Fig. 4.

Fig. 5.



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AUTOMATIC CABLE-ATTACHER FOR SALVAGE-WORK.

1,289,957.

Specification of Letters Patent.

Patented Dec. 31, 1918.

Application filed May 13, 1918. Serial No. 234,311.

To all whom it may concern:

Be it known that I, CONSTANTINE E. M. TAMBACOLO, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Automatic Cable-Attachers for Salvage-Work, of which the following is a specification.

This invention relates to apparatus for raising sunken vessels.

The invention is particularly adapted for use in salvage work and has for its primary object the provision of an apparatus which will consist of means for eliminating the use of divers in the work of connecting the apparatus with sunken vessels and treasures and for effecting an effective automatic application of a draft connection with the vessel or object to be raised so that the latter can be expeditiously drawn to the surface of the water in any suitable well known manner.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification and in which similar reference numerals indicate corresponding parts in the several views and wherein:—

Figure 1 is a face view of the apparatus.

Fig. 2 is a section taken on the line 2—2 of Fig. 1.

Fig. 3 is a vertical section through the combined drill and tap.

Fig. 4 is a section taken on the line 4—4 of Fig. 2, and

Fig. 5 is a section taken on the line 5—5 of Fig. 2.

In carrying the invention into practice, use is made of a frame or casing 10 having a plurality of electromagnets 11 mounted thereon on one of its sides as shown in Figs. 1 and 2. I do not desire to limit myself to any particular form of such magnets and therefore have only made a conventional illustration thereof and it is to be understood that those which may be found most suitable for the purpose will be employed. I do wish to describe, however, that they will possess the desired magnet power to enable given weights to be properly supported thereby when in contact therewith.

Located within the frame or casing 10 is a hollow shaft 12 mounted in bearings 13 and 14 and opening toward that side of the casing on which said magnets 11 are arranged. This hollow shaft is disposed in the

same general line with a hollow sleeve 15 fixedly connected with the casing at 16. The hollow shaft is provided with a squared bore 17, while the sleeve is provided with a threaded bore 18, the latter rotatably receiving therein a correspondingly threaded member 19 having a threaded extension 20 projecting into the hollow shaft. The member carries a squared portion 21 whose flat surfaces are in contact with the flat walls of the bore 17 so that when power is transmitted to the hollow shaft, it in turn will be directed to the member 19 to cause feeding movement thereof in the sleeve 15 and said hollow shaft 12. One end of the member 19 is attached to a draft cable 22 which is adapted to be extended to a hoisting apparatus upon a floating vessel from which the work of hoisting is to be conducted. The opposite end of the member terminates in a tap 30 having a drill 23 which passes through a movable washer 24 on the casing 10.

A motor or suitable well known power plant 25 is arranged in the casing 10 and the driving shaft thereof is provided with a gear wheel 27 and the latter is disposed to coact with a power multiplying gear train 28 including a fixed gear wheel 29 fixed to the hollow shaft 12.

From the described construction of the apparatus, it will be observed that the magnets 11 serve to maintain a fixed relation of the drill 23 to the hull of the vessel to be raised and that after such connection is established, power is imparted to the drill to advance the same against its work. In this manner, a passage will be formed in the hull of the vessel and successive with the formation of said passage the tap 30 will follow the course taken by the drill to thread the walls of said passage for its subsequent receipt of the bolt 20. A firm connection is now produced between the vessel to be raised and the apparatus and by means of the mentioned draft connection, the vessel can be raised to the surface of the water in an expeditious manner. Other hanging cables can be employed and connected with eye members 31 on the casing 10. When the headed portion 21 of the screw 20 reaches the washer 24, the latter is detached and applied against the walls of the hull of the vessel with said squared head of the bolt in firm engagement therewith.

What is claimed as new is:—

1. A salvage machine comprising a bolt

having a squared head, an interiorly threaded member, an exteriorly threaded extension on the bolt at one side of the head thereof arranged in said interiorly threaded member, a draft cable fixedly connected with said extension, means revolving against the head of the bolt and operating to accommodate the same for longitudinal adjustment, mechanism for revolving said means to feed the extension through said member, a tap located in advance of the bolt and forming a fixed part thereof and a drill forming a fixed part of the tap and arranged in advance thereof.

2. A salvage machine comprising a bolt having a squared head, an interiorly threaded member, an exteriorly threaded extension on the bolt at one side of the head thereof arranged in said interiorly threaded member, a draft cable fixedly connected with said extension, means revolving against the head of the bolt and operating to accommodate the same for longitudinal adjustment, mechanism for revolving said means to feed the extension through said member, a tap located in advance of the bolt and forming a fixed part thereof, a drill forming a fixed part of the tap and arranged in advance thereof, means for holding the drill end of the bolt against its work, and a removably supported washer apertured for the free movement of the drill and said tap

therethrough and adapted to be projected against the work under the action of the head of the bolt.

3. A salvage machine comprising a frame, an internally threaded member fixed to the frame, revolving means having one end journaled in the frame, said means having a continuous squared bore, mechanism for revolving the means, a bolt slidable in the bore of said means and provided with a squared head freely engageable with the walls of said bore, a threaded extension formed on the bolt and operating in said member, a cable fixed to the extension, a washer removably supported from the frame in line with the bore of said means, means for holding the frame against its work, a tap carried by the bolt, and a drill extending from the tap and freely movable through the washer, the washer disposed in the path of movement of the bolt to be engaged by the head thereof, as and for the purpose specified.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses, this 29 day of April 1918.

CONSTANTINE E. M. TAMBACOPOLLO.

Witnesses:

JOHN KEUCHRAFTIS,
COSTAS KONSHIRAPTIS.