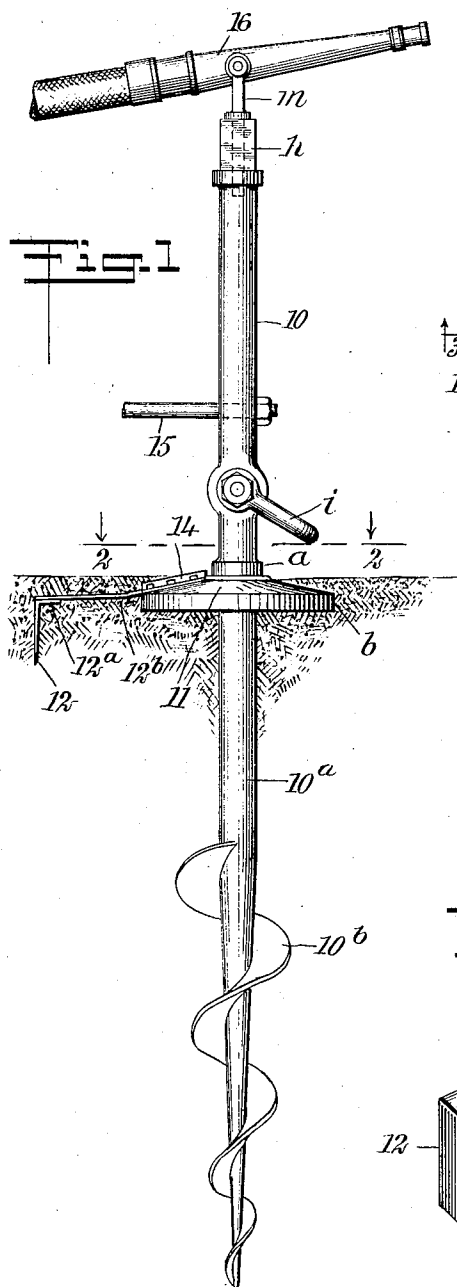
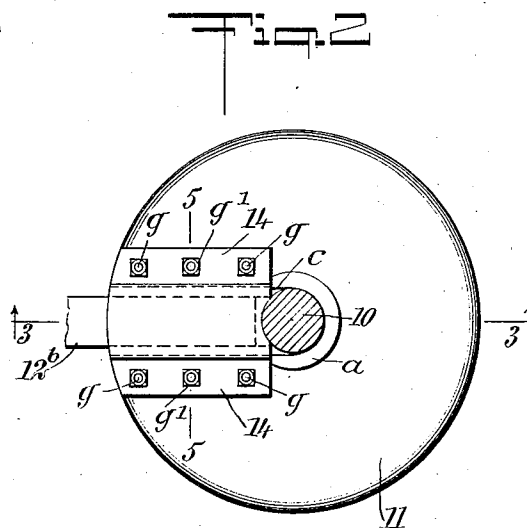
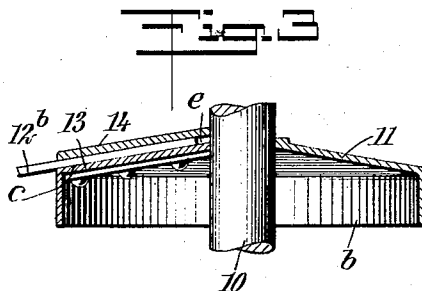
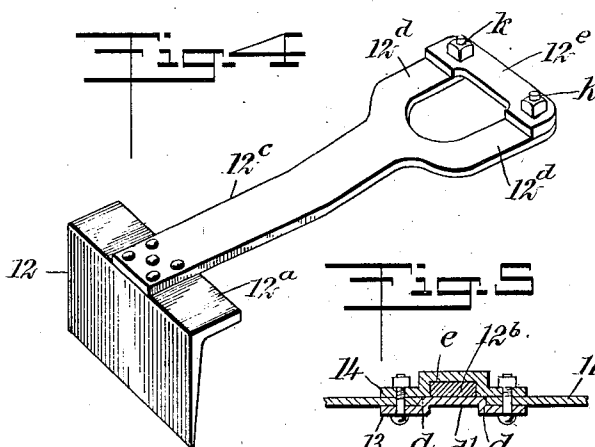
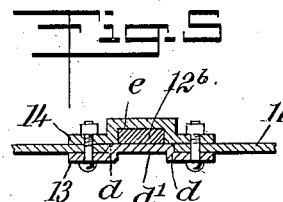


No. 897,787.

PATENTED SEPT. 1, 1908.

J. J. RYAN.
SHORE ANCHOR.

APPLICATION FILED JAN. 10, 1908.



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SHORE-ANCHOR.

No. 897,787.

Specification of Letters Patent.

Patented Sept. 1, 1908.

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To all whom it may concern:

Be it known that I, JOHN JAMES RYAN, a citizen of the United States, and a resident of Memphis, in the county of Shelby and State of Tennessee, have invented new and useful Details of Construction for a Shore-Anchor, of which the following is a full, clear, and exact description.

This invention relates to stationary means for temporarily anchoring floating vessels or other floating objects along the shore of a stream.

For the temporary holding of a vessel, raft or other floating object close to the shore of a river or other waterway, it is often found necessary to provide an anchor-post at a particular point; and the object of my present invention is to provide novel features of construction for a device of the character indicated, which are simple and practical, and afford a very secure shore-anchor that may be readily placed in position and removed, as may be desired, a further object being to provide additional novel and advantageous details of construction for the shore-anchor patented by me November 17, 1896 Number 571,624.

The invention consists in the novel construction and combination of parts, as is hereinafter described and defined in the appended claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevational view of the improved anchor in position for service; Fig. 2 is an enlarged sectional plan view of one example of my improvement, taken substantially on the line 2—2 in Fig. 1; Fig. 3 is a transverse sectional view, substantially on the line 3—3 in Fig. 2; Fig. 4 is a detached perspective view of a slightly changed novel detail, and Fig. 5 is a transverse sectional view of details, on the line 5—5 in Fig. 2, taken at right angles to the section-line 3—3 in said figure.

The anchor comprises a preferably cylindrical body portion 10 for a metal post, which is formed with a radial collar *a* thereon at a suitable distance from the normally upper end of said body, and below the collar *a* there is an integral extension 10^a of the body, that tapers somewhat toward the normally lower end thereof, said extension having a spiral thread-like formation 10^b thereon, for

a screwed insertion into soil, as is indicated in Fig. 1. A preferably circular base plate 11, having a depending peripheral flange *b* thereon, and a central circular opening therein, is mounted upon the post extension and has contact with the collar *a*, when the post is erected for service. The base plate 11 may have a radial slot *c* extended from the central opening therein, the slot having a width equal with the diameter of said opening, which will enable the lateral insertion of the post through the slot in the central opening.

Coöperating with the base plate 11 is an anchor plate 12, consisting of a flat blade of plate metal, having a flange 12^a bent at a right angle along one transverse edge. A flat bar 12^b, formed of suitable metal, is at one end thereof lapped upon and secured to the flange 12^a, thus providing an arm thereon which is secured upon the base plate 11, by means best shown in Figs. 2 and 5, which will be described. A clamping plate 13 is offset at two points *d* on one side thereof, thus affording a flat central projection *d'* thereon which is so proportioned in width as to adapt said projection for insertion within the slot *c*, the off-sets *d'* having a loose contact with the side edges of said slot.

It will be seen that the off-set projection *d'* has its level upper surface flush with the upper surface of the base plate 11 that is adjacent to the slot *c*, and upon these alined surfaces another clamping plate 14 is seated. Centrally in the lower side of the clamping plate 14, a channel *e* is longitudinally formed, having a width and depth which permits the insertion therein of the arm 12^b, when the clamping plate 14 is seated upon the base plate 11.

The clamping plate 14 is perforated at spaced intervals near each side edge thereof, in registry with similar perforations in the lower clamping plate 13, these perforations receiving bolts *g*, whereon are nuts *g'*, and it will be seen that by adjustment of said nuts, the clamping plates 13, 14, will be forcibly clamped upon the arm 12^b, thus securing it and the anchor blade 12, projected laterally from the base plate, said blade extending downward for embedment in the soil.

Upon the upper end of the post 10, an angular formation *h* is produced, whereon a lever wrench of suitable length, not shown, may be placed, and afford means for rotat-

ing the post and effecting its screwed insertion into the soil in an erect position, thus embedding the depending flange 12^a thereinto, and when fully embedded, the anchor blade 12 is sunken into the ground and serves to support the post against lateral draft-strain.

A clevis link *i* is loosely secured upon the post 10, a short distance above the collar *a*, affording means for securing a cable from a vessel in connection with the anchor post, and for effective service, the co-acting anchor blade 12 and the arm 12^b should be disposed directly opposite the line of draft on the clevis link.

In some situations, it may be found necessary to employ a plurality of the anchor posts 10, either owing to the soft condition of the soil, the weight and size of the object to be anchored, or the swiftness of the stream. To this end, any desired number of the anchor posts are employed, these being arranged in sequence, spaced apart, and all connected together by one or more coupling bolts 15.

In Fig. 4 I have shown a slightly changed construction of the arm that connects the anchor blade with the body 10 of the anchor post. In this case the arm 12^c is furcated at the end which is to engage with the post, and, as represented in Fig. 4, two parallel flat members 12^d are thus produced, which straddle the post in an obvious manner when the arm is to be secured thereon, and to effect the latter a keeper plate 12^e is secured at its ends by bolts *k* upon the members 12^d, after they have been caused to embrace the body of the post.

In either construction of the arm, it is mounted and secured upon the anchor blade 12, as already described, and the latter is embedded in the soil as before explained, for lateral support of the anchor post.

The device is capable of serving as a support for temporary or permanent buildings where the soil is loose and easily penetrated, also it is available in hydraulic mining, or

road bed grading, for which service a swivel connection *m* may be employed for connecting a nozzle branch pipe 16, with the top of the post body, as indicated in Fig. 1.

Having described my invention, I claim as new and desire to secure by Letters Patent:

1. The combination with a post having a threaded lower portion and a collar thereon, of a base plate having a radial slot therein, a peripheral depending flange thereon, said base plate being mounted upon the post below the collar, an arm extended from the base plate, an anchor blade depending from the outer end of the arm, and means for closing the slot in the base plate.

2. The combination with a post having a threaded lower portion and a collar thereon above the thread, of a radially slotted base plate, a peripheral depending flange on said base plate, an anchor blade, an arm on said blade, and clamping means for securing said arm radially projected from the base plate, said means also closing the slot therein.

3. The combination with an anchor post having a thread on its lower portion, a collar thereon above the thread, and a clevis link on the post above the collar, of a base plate having a depending flange on its periphery, said base plate being radially slotted, an arm, a depending anchor blade on the outer end of said arm, and clamping plates for securing the arm on the base plate over the radial slot, said clamping plates also closing the slot.

4. In a device of the character described, the coöperative anchoring device, comprising a forked arm, a keeper plate securable on members of the fork, and an anchor plate secured on the opposite end of the arm and depending at an angle thereto.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN JAMES RYAN.

Witnesses:

ROBT. S. PARKS,
JENNIE W. DAURIAC.