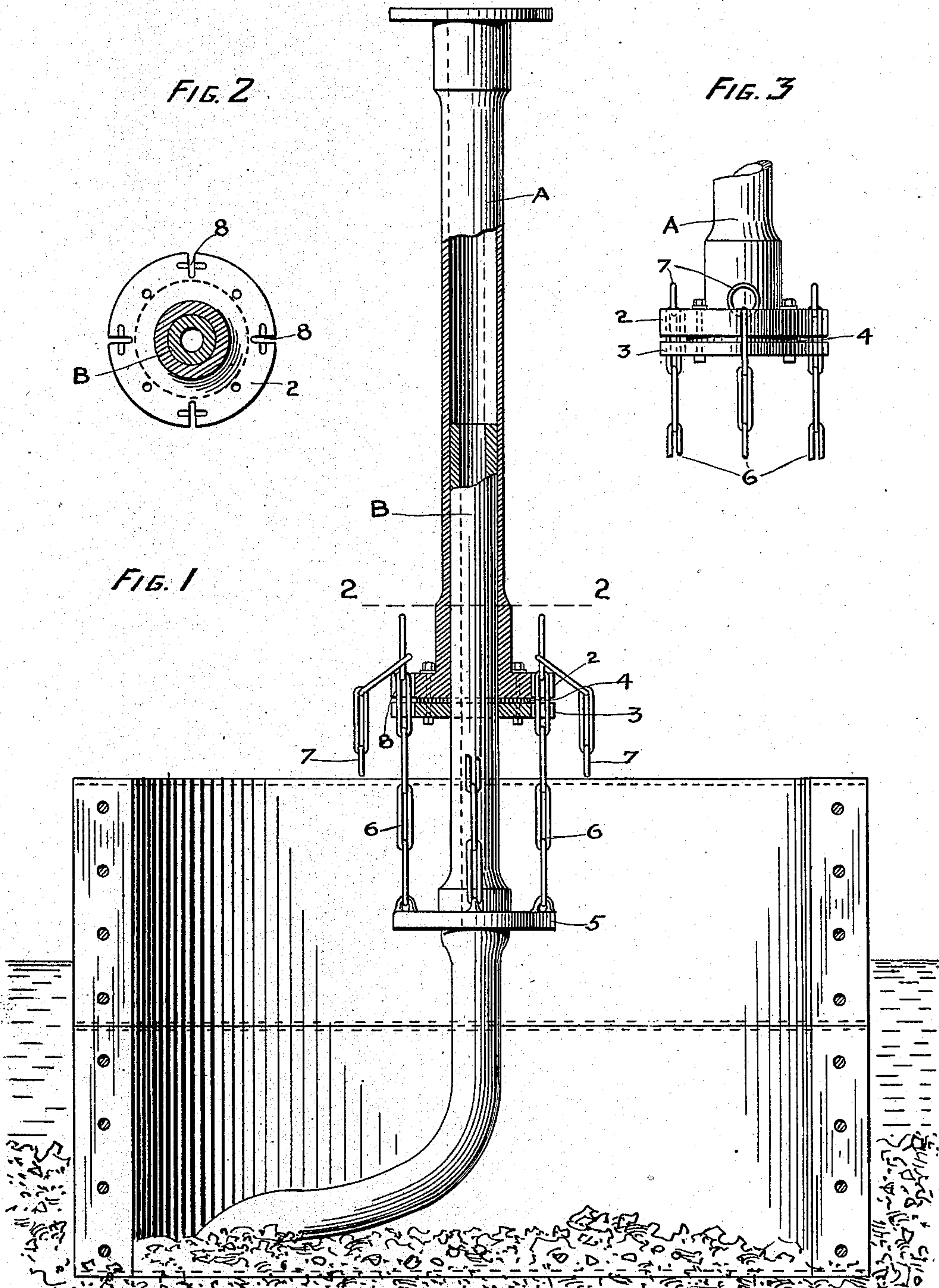


W. W. BEESON.
TELESCOPE MINING PIPE.
APPLICATION FILED JUNE 24, 1908.

900,470.

Patented Oct. 6, 1908.



WITNESSES:

Leon Boillon
Charles A. Simpson

INVENTOR:

Willis W. Beeson
by Geo. H. Strong,
Att'y.

UNITED STATES PATENT OFFICE.

WILLIS W. BEESON, OF REDWOOD CITY, CALIFORNIA.

TELESCOPE MINING-PIPE.

No. 900,470.

Specification of Letters Patent.

Patented Oct. 6, 1908.

Application filed June 24, 1908. Serial No. 440,162.

To all whom it may concern:

Be it known that I, WILLIS W. BEESON, citizen of the United States, residing at Redwood City, in the county of San Mateo and State of California, have invented new and useful Improvements in Telescope Mining-Pipes, of which the following is a specification.

My invention relates to a device to be used in conjunction with extensible caissons, such as are employed for recovering valuable material from submerged positions in rivers or like bodies of water.

It consists of a sectional pipe, telescopically united, and capable of gradual extension without interrupting the work, and in details of construction which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a partly sectioned elevation of the telescope pipe. Fig. 2 is a section of the pipe on line 2—2 of Fig. 1. Fig. 3 is the lower end of pipe A, showing (broken) chains fully extended.

Mining enterprises are carried on in rivers where valuable gold-bearing sands are submerged to considerable depths by the use of caissons which are made in sections, and may be gradually extended as the work progresses; these caissons serving to protect a diver who conducts the operation at the bottom.

The sand is raised in various ways. In my invention I have shown a pipe to which a vacuum may be applied sufficient to cause the sand which is delivered at the lower end of the pipe to be drawn up and discharged at the top. Such pipes are moved about and directed by the diver, and when the space within the caisson has been cleared, it is necessary to extend the pipe for further operations. This is usually effected by adding sections of the pipe, and as these sections are usually united by means of flanges and bolts passing there-through, the whole operation must be suspended until a new section of pipe has been added, and the device lowered into place. This stoppage of the work allows exterior sand to wash in, and the lower part of the caisson often to become obstructed with sand from the outside which, being surface sand or strippings, has no great value, and this must all be withdrawn before the gold-bearing sand at the bottom is again reached.

It is the object of my invention to provide a means by which the suction pipe may be gradually extended as the work progresses, and without interruption. Such a pipe I have shown made in sections A and B; the section A being the upper section, and having suitable flanges 2 and 3 at the lower end, between which a substantially water-tight yielding collar 4 is fixed.

The section B is slidable within the section A, and the collar forms a sufficiently tight joint about the section B to prevent loss of pressure by leakage. This section has also a flange 5 at the lower end, and this flange has means provided for the attachment of chains 6.

The flanges 2 and 3 may be slotted as in 8 or otherwise provided with means for the engagement of links of the chain or engaging devices carried thereby. The chain may have hooks, or other suitable engaging devices 7, upon it, and when the work commences, the section B being fully drawn up into the section A, the latter is lowered until the lower end of the section B rests upon the surface of the sand, or is in position for work. The chains connecting the pipe B with the pipe A retain the former in this position until all the work within its scope of movement has been completed. It is then only necessary to release the chain attachments and allow the pipe B to descend as far as is necessary to complete the work. The chains are again connected with the pipe A, and the work thus carried on until the full extent of the pipe B has been utilized. By drawing this pipe up and attaching another section to the lower end, the work may be again carried on with little or no interruption, and the ingress of valueless material into the caisson is thus prevented.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. In an apparatus of the character described, a suction pipe having flanges at the lower end, a flexible joint-forming collar clamped between, an extension pipe slidable within the first named pipe and through the collar, said extension having its lower end adapted to collect material when a vacuum is produced, and means by which said pipe is suspended from the uppermost section, and extensible with relation thereto, said flanges having peripheral slits and said means in—

cluding flexible elements joined together and adapted to enter said slits and to stand cross-wise above the same.

2. In an apparatus of the character described, the combination of a main pipe having flanges, and a joint-forming collar at the lower end, said flanges being provided with peripheral slots, a second pipe slidable through the collar and forming a tight joint therewith, and having its lower end adapted to collect material when a vacuum is produced, and chains connected with the second

pipe and having its links adapted to enter said slots and to stand cross-wise above the same, whereby the lower pipe may be gradually extended by shifting the positions of the links. 15

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIS W. BEESON.

Witnesses:

G. F. GRAY,
K. H. LIEST.