Jan. 14, 1964 G. E. GEORGE ETAL 3,117,543

DUMPING BARGES

Filed Sept. 15, 1960 2 Sheets-Sheet 1

FIG.1

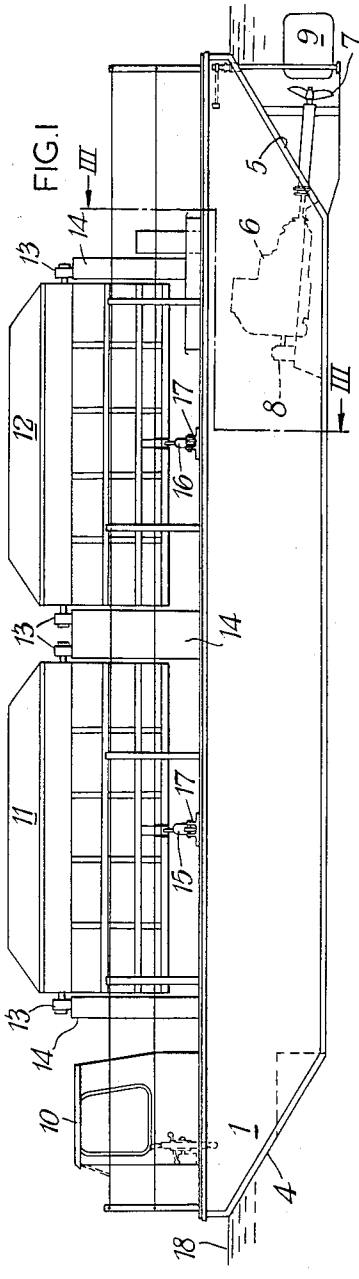
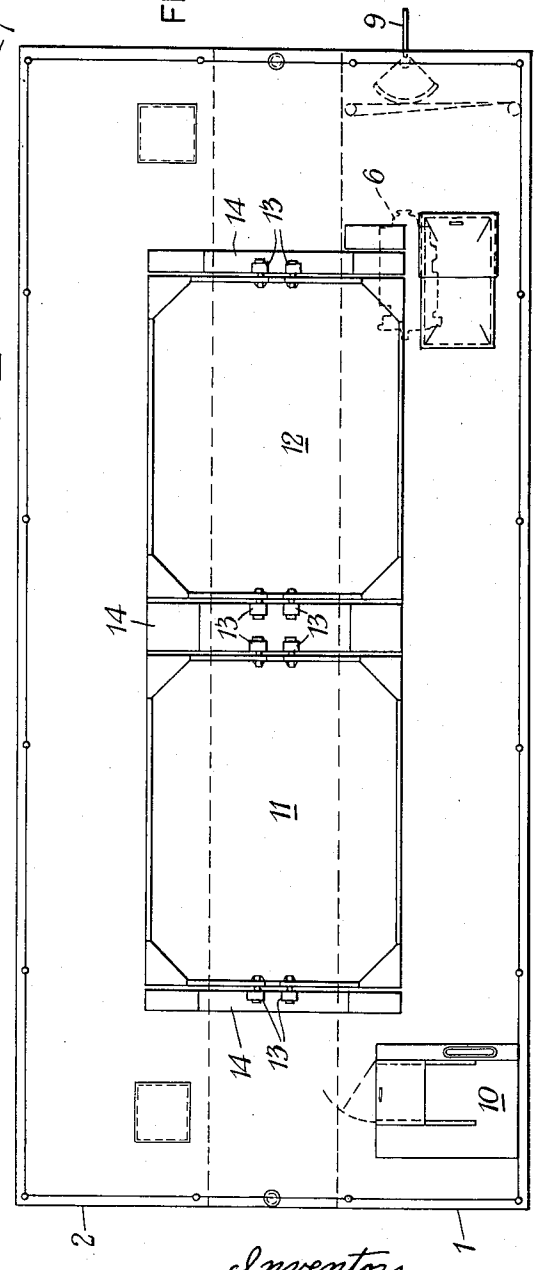


FIG.2



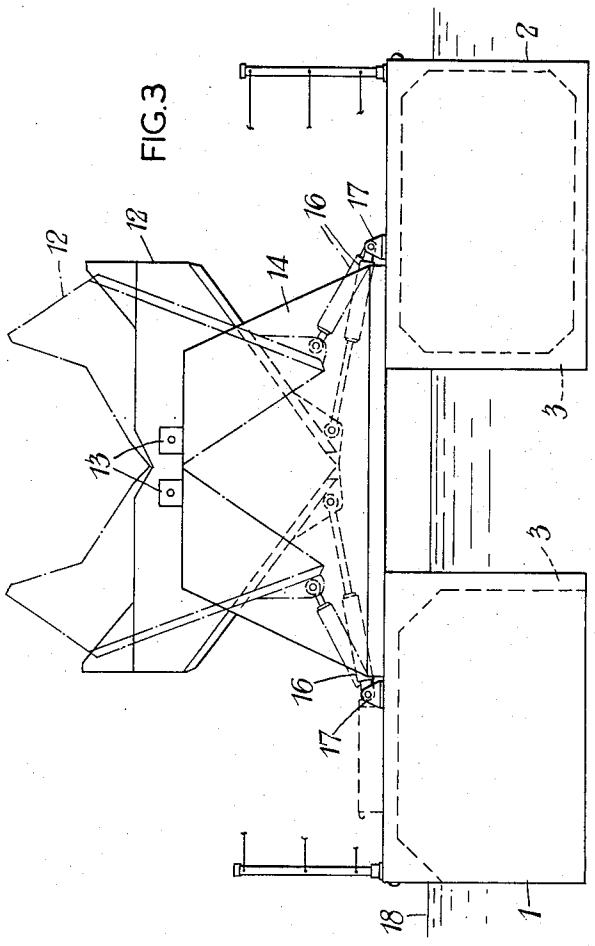
Inventors
Griffin Edward George,
Michael Peter D'Marco
by Sommers & Young
Attorneys

Jan. 14, 1964 G. E. GEORGE ETAL 3,117,543

DUMPING BARGES

Filed Sept. 15, 1960 2 Sheets-Sheet 2

FIG.3



Inventors
Griffin Edward George,
Michael Peter D'Marco
by Sommers & Young
Attorneys

United States Patent Office

3,117,543

Patented Jan. 14, 1964

3,117,543

DUMPING BARGES

Griffin Edward George, Twoways, Hurst Lane, Egham, and Michael Peter D'Marco, 6 Elmfield Way, Sanderstead, England

Filed Sept. 15, 1960, Ser. No. 56,289
1 Claim. (Cl. 114—28)

This invention relates to dumping barges, also known as muck barges, which are used for dumping material under water. One object of the invention is to provide such a barge which can be used for filling in water-covered areas, such as gravel pits, up to and even above the water level.

According to the invention, a dumping barge comprises a pair of spaced parallel hulls and one or more hopper bodies mounted on the hulls above the load water line and adapted to discharge between the two hulls. The hopper body or bodies may be operated by hydraulic rams and are preferably of the clam shell type.

As the hopper body or bodies are mounted above the load water line, material can be discharged therefrom between the hulls up to and above the water level.

One embodiment of the invention will now be described by way of example with reference to the accompanying drawings, in which:

FIGURE 1 is a side elevation,

FIGURE 2 a plan view, and

FIGURE 3 is a diagrammatic cross-sectional elevation on line III—III of FIG. 1 of a dumping barge.

In this embodiment, the barge comprises two similar square-section hulls 1, 2 constructed of welded steel plates on angle iron frames 3. The hulls 1, 2 each have an inclined bow or forefoot 4 and an inclined stern 5. A diesel engine 6 driving a propeller 7 and a hydraulic pump 8 is mounted in the hull 1. The rudder 9 and associated steering gear are also mounted on the hull 1, and a control cabin 10 is mounted on the forward end of this hull.

Two hopper bodies 11, 12 of clam shell type are supported in bearings 13 mounted on king posts or pedestals 14 bolted to the hulls 1, 2. The hoppers 11, 12 are closed by pairs of hydraulic rams 15, 16. Each ram is articulated to one half of the respective clam shell hopper body and to an anchorage 17 on the respective side deck. The rams are operated from the hydraulic pump 8.

The hoppers 11, 12 are disposed above deck level and well above the load water line 18, as can be seen from FIGURE 3, so that they discharge through the space between the two hulls 1, 2 above water level.

The dumping barge which has been described is particularly adapted for use in the sand and ballast trade for back filling gravel pits when the ballast has been removed therefrom. The overburden which is removed from the top of the ballast in the part of the pit which is being excavated is loaded by an excavator direct into the dumping barge, which then takes it to the part of the pit which is being filled. The inclined bow of the barge is run ashore on the bank and the hopper is discharged. The pit can thus be back-filled up to and above the water level.

We claim:

A dumping barge comprising a pair of spaced, parallel hulls, at least one clam shell type hopper body, at least two king posts each secured to both of the said two hulls and carrying mountings for opposite ends of the two halves of said hopper body, said hopper body being thus supported above the load water line and adapted to discharge between the said two hulls, an engine accommodated in one of the said two hulls, a propeller driven by said engine, a hydraulic pump also driven by said engine, a pair of hydraulic rams each of which is articulated to one of said halves of said hopper body and to an anchorage on the respective hull and is supplied with hydraulic fluid from said hydraulic pump, and a rudder and associated steering gear mounted on said one hull which accommodates said engine.

References Cited in the file of this patent

UNITED STATES PATENTS

244,910	McGiehan	July 26, 1881
542,408	Delehanty	July 9, 1895
973,210	Rakowsky	Oct. 18, 1910
2,011,886	Back	Aug. 20, 1935
2,237,299	Benbow et al.	Apr. 8, 1941