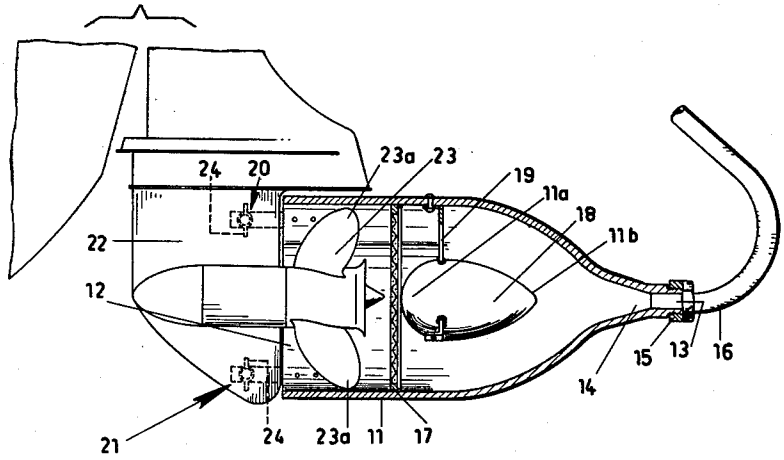
June 2, 1964 E. O. JOHNSON 3,135,214

PUMP ATTACHMENT FOR OUTBOARD MOTORS

Filed Nov. 29, 1962

Fig. 2



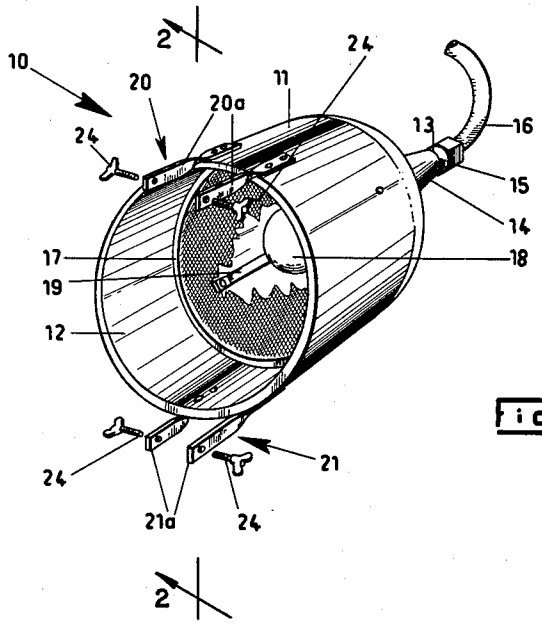


Fig. 1

INVENTOR.

Earl O. Johnson

United States Patent Office 3,135,214 Patented June 2, 1964

3,135,214

PUMP ATTACHMENT FOR OUTBOARD MOTORS

Earl O. Johnson, 708 Church St., Fort Frances, Ontario, Canada

Filed Nov. 29, 1962, Ser. No. 240,873
5 Claims. (Cl. 103—87)

This invention relates generally to auxiliary water pumps and more particularly to a device adapted to utilize the thrust of an outboard motor propeller in such a manner as to channel the water thrust therefrom into a specially designed cowl, the water thereafter issuing under pressure via a conventional hose for jet or spray distribution to any selected area.

In many instances the provision of a simple and effective water pump is of considerable importance, this being particularly so in the more remote areas, summer cottage locations and the like. In these circumstances a source of pressurized water is invaluable and has application to innumerable uses such as localized firefighting, replenishing of water storage tanks, automobile washing, etc.

To comply with this requirement various devices have heretofore been proposed consisting generally of special pump equipment drawing water from adjacent lakes and streams, thereafter discharging the water from hoses at a suitable pressure. In certain cases, the pumping equipment is powered by boat engines, being coupled to the drive shaft of an outboard motor, the propeller of which is first removed.

While these prior devices achieve their several intended purposes with varying degrees of success, a closer examination of their construction and operation reveals certain inherent disadvantages, a chief one being cost. Provision of a reliable compressor pump capable of being driven by a boat engine is a relatively costly item and presents a capital outlay many people are not prepared to invest in, particularly in the case of summer cottage vacationers.

Therefore, having in mind the utility of such a provision and being aware of the disadvantages attendant upon prior equipment of this nature, it is my intention to provide a pump attachment for outboard motors referred to hereinafter as a pump attachment, which dispenses with the necessity of a compressor unit.

Another important object of the instant invention resides in the provision of a pump attachment which is quickly and easily mounted on an outboard motor, no removal of the propeller being required.

Yet a further object of my invention is to provide a pump attachment which incorporates a screening medium thereby ensuring that the water passing therethrough is substantially free from obstruction, weeds or the like.

Still other objects of this invention reside in the provision of a pump attachment which comprises a minimum of parts, costs much less to manufacture than existing appliances designed to achieve similar results, and requires little or no maintenance due to its having no moving parts.

These and other pertinent objects and features of my invention will become more readily apparent from the following detailed description of parts and assemblies, and when taken in conjunction with the following drawings, in which:

FIG. 1 is a perspective view of a pump attachment embodying the present invention.

FIG. 2 is a sectional side elevation of the invention illustrated in FIG. 1, taken on the line 2—2.

Referring now to FIGS. 1 and 2, a pump attachment generally designated by the arrow **10** includes a cowl **11** of cupola like configuration. Cowl **11** which has a first open end **12** referred to hereinafter as inlet **12** and a second open end **13** referred to hereinafter as outlet **13**, is

substantially cylindrical for the greater part of its length, tapering thereafter to a terminal neck section **14** adapted to threadably receive a conventional hose coupling **15** and hose **16**.

A filtering screen **17** adapted to conform to the inner diameter of cowl **11** is located transversely therein, and is so formed as to allow the unrestricted passage of water therethrough while preventing the passage of any object sizable enough to cause an obstruction within neck **14** or hose **16**.

A symmetrical hydrofoil section **18** located rearwardly of screen **17** and centrally within cowl **11** has its rounded front section **11***a* facing toward inlet **12** and its tapering rear section **11***b* directed toward neck **14**. Hydrofoil section **18** is held rigidly in position by means of a plurality of radially disposed stays **19**, each of stays **19** having one end fixed to hydrofoil section **18** and its opposite end affixed to the inner walls of cowl **11**.

Mounting means adapted to retain pump attachment **10** in position on an outboard motor assembly, include two sets of bar clamps, an upper set **20** and a lower set **21**. Clamps **20** and **21** each comprise two bars **20***a* and **21***a* respectively, bars **20***a* and **21***a* projecting forwardly of inlet **12**. Upper bar clamp **20** is adapted to receive and retain a section of an outboard motor frame **22** above the propeller **23** of an outboard motor, lower bar clamp **21** being likewise adapted to receive and retain a section of outboard motor frame **22** below propeller **23**, clamps **20** and **21** being attached to frame **22** by conventional wing nut means **24**.

In assembly, pump attachment **10** is mounted over propeller **23** and clamped to the outboard motor as heretofore described. It should be noted that propeller **23** is housed within the forward part of cowl **11**, sufficient clearance being effected to prevent any danger of fouling between propeller **23** and cowl **11**.

It will be readily understood that the mounting of pump attachment **10** to an outboard motor is rendered extremely simple by virtue of the pivotal characteristics of such motors, the assembler merely swinging the outboard motor clear of the water and affixing pump attachment **10** thereto, thereafter lowering the outboard to its operative position again.

In operation propeller **23** rotating within cowl **11** acts as an impeller drawing water through inlet **12** and projecting it rearwardly through screen **17**, whereafter it is pressurized by having to pass over and around hydrofoil section **18** while following the contours of cowl **11** into the restriction of neck **14**.

This action results in a considerable pressure increase, controllable by throttle adjustment on the outboard motor, and the subsequent discharge of water through the nozzle of hose **16** is of sufficient force to project the water for a considerable distance.

The general design of the individual parts of the invention as explained above may be varied according to requirements in regards to manufacture and production thereof, while still remaining within the spirit and principle of the invention, without prejudicing the novelty thereof.

The embodiments of this invention in which an exclusive property or privilege is claimed are defined as follows:

1. A pump attachment for outboard motors including a cupola like cowl having a first open end capable of receiving an outboard propellor assembly, and a second open end of reduced diameter; a hydrofoil section located substantially centrally within said cowl; and mounting means for the attachment of said cowl to the framework of an outboard motor.

2. A pump attachment for an outboard motor, comprising:

a cupola-shaped cowl having an enlarged open axial end adapted to be coaxially located about a conventional outboard motor propeller; said cowl further having a restricted open axial end longitudinally displaced from the intended propeller location;

means on said cowl adapted to operatively fix said cowl relative to an outboard motor frame;

and a bulbous hydrofoil section fixed to said cowl and located coaxially intermediate the intended propeller location and said restricted open axial end of said cowl.

3. A pump attachment for an outboard motor, comprising:

a cupola-shaped cowl having an open cylindrical end section adapted to coaxially receive a conventionally mounted propeller of an outboard motor, said cowl further including a coaxial tapered section of decreasing interior diameter formed integrally with said cylindrical end section and leading to a restricted outlet opening formed therein;

a bulbous hydrofoil section fixed to said cowl and located therein at a coaxial position between said cylindrical end section and the restricted opening, said hydrofoil section having an enlarged longitudinal

end facing toward said open cylindrical end section of said cowl;

and clamping means on said cowl adapted to fasten said cowl in a fixed position relative to the frame of an outboard motor.

4. A pump attachment for an outboard motor as defined in claim 3 further comprising:

a meshed grid extending across the interior of said cowl adjacent the enlarged end of said hydrofoil section adapted to prevent entry of debris beyond the open cylindrical end section of said cowl.

5. A pump attachment for an outboard motor as defined in claim 3 wherein said cowl includes an outwardly directed portion in communication with said restricted outlet opening;

and hose means operatively connected to said portion.

References Cited in the file of this patent

UNITED STATES PATENTS

960,775	Baldwin	June 7, 1910
1,596,459	Schmidt	Aug. 17, 1926
2,551,371	Grigg	May 1, 1951
2,847,966	McIntosh	Aug. 19, 1958
2,947,259	Writhg et al.	Aug. 2, 1960