

Oct. 7, 1930.

C. H. RANDALL

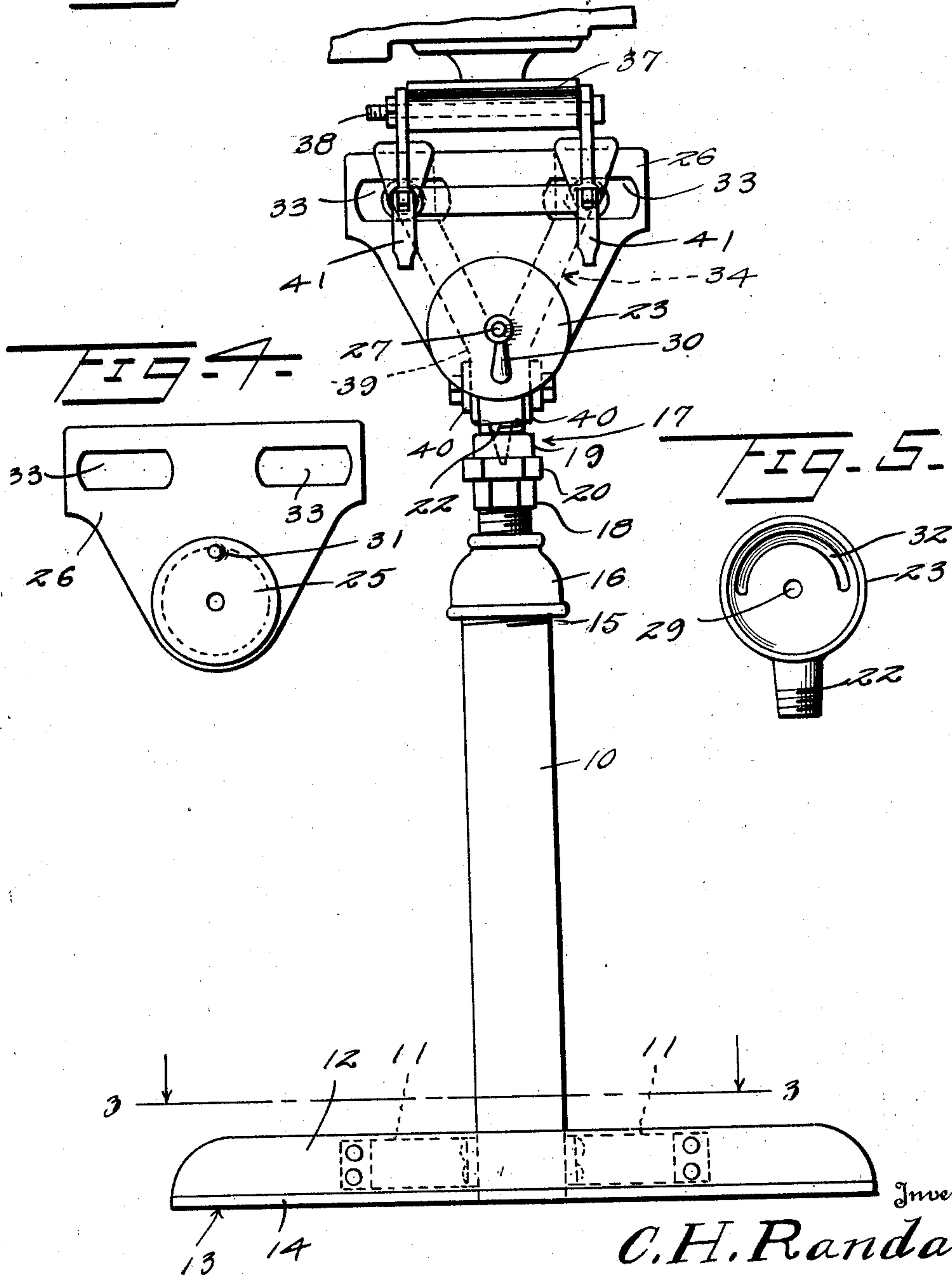
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STAND FOR OUTBOARD MOTORS

Filed Dec. 27, 1928

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FIG. 1.



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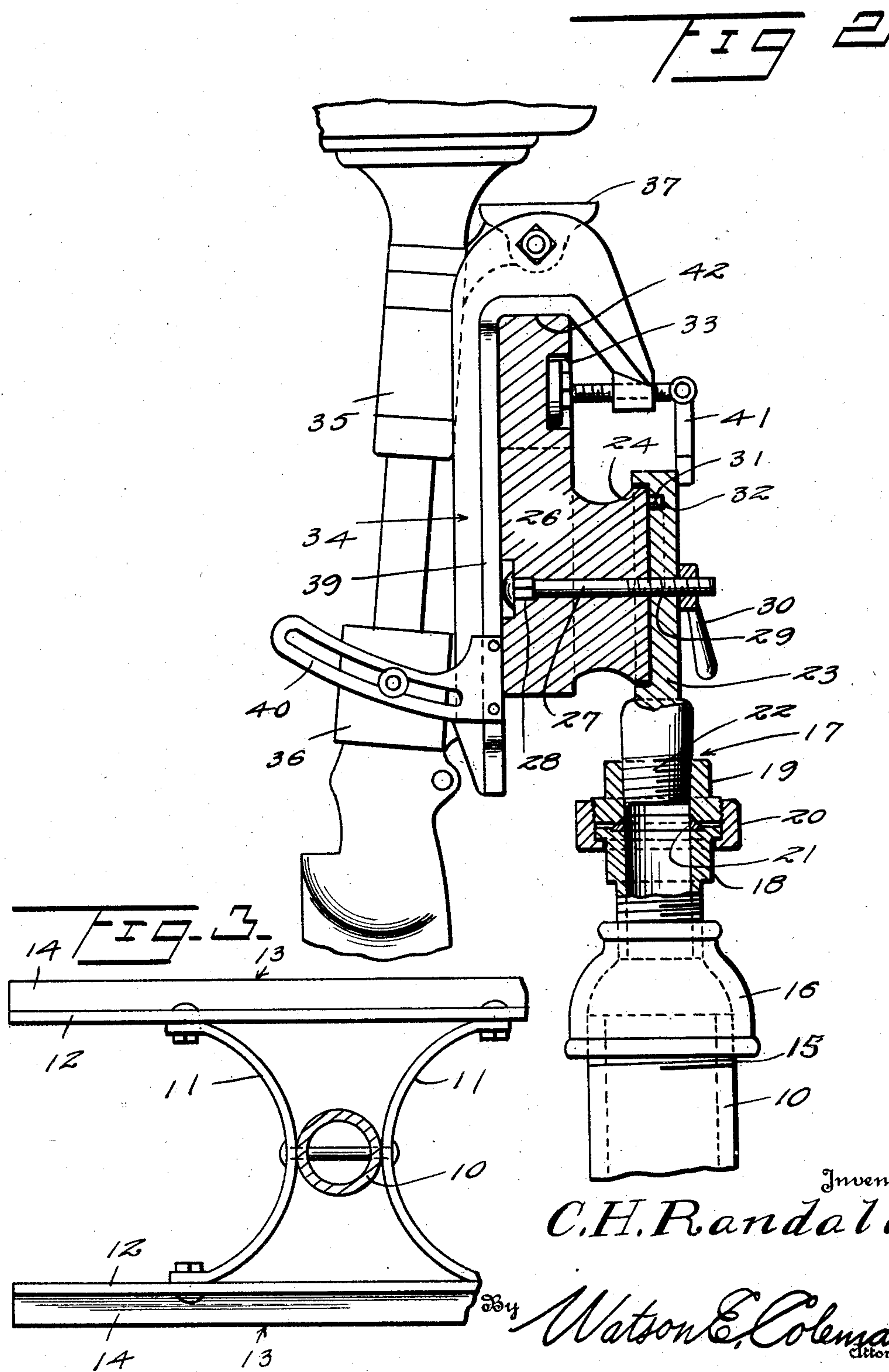
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2 Sheets-Sheet 2



UNITED STATES PATENT OFFICE

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STAND FOR OUTBOARD MOTORS

Application filed December 27, 1928. Serial No. 328,824.

This invention relates to stands for outboard motors, and more particularly to a stand for supporting the motor during inspection and repair work.

5 Outboard motors have received considerable attention of late and are popularly used in small boat racing. As practical tests of such motors often indicate the necessity for additional repairs before use of the motor for racing purposes, an important object of the invention is to provide a stand which is capable of use in any situation and which is readily portable and will securely hold the motor in any desired adjusted position.

15 A further object of the invention is to provide a device of this character which, while providing a means for universally positioning the motor, of itself is so constructed that, in combination with the movements of the motor afforded by the usual motor mountings, it will permit the motor to be positioned at all times in such manner that the part being worked upon is most directly accessible.

25 A still further object of the invention is to produce a device of this character which in so far as possible embodies standard pipe parts or parts which are readily obtainable in any sheet metal shop, thus eliminating long waits in event repair becomes necessary.

30 These and other objects I attain by the construction shown in the accompanying drawings, wherein for the purpose of illustration is shown a preferred embodiment of my invention and wherein:—

35 Figure 1 is a front elevation of an outboard motor stand constructed in accordance with my invention, the motor being partially illustrated;

40 Figure 2 is a vertical sectional view through the upper end of the stand showing the motor in position thereon;

Figure 3 is a section on the line 3—3 of Figure 1;

45 Figures 4 and 5 are detail elevations of the sections of the head.

Referring now more particularly to the drawings, the stand includes a vertical standard 10, to the lower end of which are bolted curved sheet metal bands 11, the outer ends 50 of which are secured to the vertical flanges

12 of angle irons 13. While angle irons are illustrated and their use is preferred, it will be obvious that any member may be provided which affords, in addition to the vertical flange 12, a horizontal flange 14, which will provide a base. Among such devices are channel and T-irons. The standard 10 is tubular and is preferably constructed from an ordinary piece of two inch wrought-iron pipe and has its upper end threaded, as at 15, for the reception of an ordinary coupling 16 preferably in the form of a reducer.

The upper end of this reducer is secured to one member of a ball joint union 17.

As is well known to those familiar with the art, such unions often termed navy unions are formed in two sections 18 and 19 coupled by a sleeve nut 20. One of the sections has a brass seat 21 upon which the other of the sections rests, thus providing at once a joint between the sections and a swivel seat. These sections are relatively rotatable so that the upper section may be secured in any position with relation to the other section and clamped by the sleeve nut 20.

In the upper section 19, I engage a threaded extension 22 produced upon the periphery of a disk 23. This disk has its inner face recessed, as at 24, for the reception of the hub 25 of a vertically extending bracket 26. This bracket has an axial stud in the form of the terminal portion of a carriage bolt 27 extended through the bracket and hub and having the squared shank portion 28 thereof seated in a prepared recess, so that the stud is held against rotation. The end of this stud projects through an axial opening 29 formed in the disk 23 and at the outer face of the disk has mounted thereon a lever nut 30, by means of which the disk and hub may be forced into frictional clamping engagement with one another to secure the bracket in rotatably adjusted positions. One of these members and preferably the hub of the bracket is provided with a pin 31 operating in a groove or slot 32 of the other member, and this slot is made of sufficient length to limit relative rotation of the bracket to the upper 180° of movement about the stud 27, which would otherwise be possible.

Since the head H provided by the disk 23, bracket 26 and its hub 25 may be rotated about a vertical axis to any desired adjusted position and the bracket may be rotated in a vertical plane upon a horizontal axis through 180°, the movement of this bracket permits substantial universal placement thereof. The face of this bracket is provided with spaced transversely elongated sockets 33 adjacent the free edge thereof, for a purpose presently to appear.

By far, the greater majority of outboard motors include in their construction mounting brackets, generally designated at 34, which are universally connected to the engine frame. In the general illustration herein provided, the engine assembly includes portions rotatably directed through bearings 35 and 36. The upper bearing 35 mounts a bracket element 37 through which a horizontal pivot bolt 38 is directed. Upon this pivot bolt is mounted an engine bracket 39, which is connected with the lower bearing element by a segment 40 slotted to permit the lower end of the bracket to move toward and away from this bearing.

It will be obvious that with the bracket secured in any adjusted position, as it may be by spaced clamping set-screws 41 bearing against an element inserted in a slot 42 formed in the bracket, the engine may be positioned at any desired angle and while at this angle may be rotated to any desired position. The bracket generally described above is embodied in practically all types of outboard motors, its form being slightly modified but the general construction described retained.

It will be obvious that if the slot 42 of this bracket is employed to receive the bracket 26 of the stand just described and the set-screws 41 are engaged in the sockets 32 of this bracket, then by means of the stand alone the engine may be disposed horizontally with either side thereof uppermost or vertically or at any position between these points and may be rotated about the stand to bring the same to a position where the most effective lighting can be obtained. It will also be obvious that when these movements are combined with the adjustments possible by means of the bracket of the engine, then the engine can be positioned in practically any position desired to render any particularly part readily accessible.

Since the construction hereinbefore set forth is capable of a certain range of change and modification without materially departing from the spirit of the invention, I do not limit myself to such specific structure except as hereinafter claimed.

I claim:—

1. In a portable stand for outboard motors and the like, a base, a standard arising therefrom, a head carried by the upper end of the standard and rotatable thereupon about a

vertical axis, said head being formed in two sections one of which is fixed to the standard and the other of which is rotatable about a horizontal pivot upon the first named section, means for securing the last named section in adjusted positions with relation to the first named section, and means for securing the head in rotatably adjusted positions, the last named section of the head being adapted to enter the slot of an outboard motor mounting and having transversely elongated sockets formed in one face thereof for the reception of clamping elements of the mounting.

2. In a portable stand for outboard motors and the like, a base, a standard arising therefrom, a head connected to the upper end of the standard, said head being formed in two sections one of which comprises a disk and the other of which comprises a bracket having a hub portion, a stud carried by the hub portion and extending axially through the disk, and a clamping member upon the stud for clamping the disk and hub against relative rotation, said bracket comprising a substantially vertical plate adapted for insertion in the slot of an outboard motor mounting.

3. In a portable stand for outboard motors and the like, a base, a standard arising therefrom, a head connected to the upper end of the standard, said head being formed in two sections one of which comprises a disk and the other of which comprises a bracket having a hub portion, a stud carried by the hub portion and extending axially through the disk, and a clamping member upon the stud for clamping the disk and hub against relative rotation, said bracket comprising a plate adapted for insertion in the slot of an outboard motor mounting, one of confronting faces of the sections of the head having a pin, the other of the sections having an arcuate slot in which the pin engages, the pin and slot engagement limiting rotation of the bracket about the stud to the upper 180° of possible rotation.

4. In a portable stand for outboard motors and the like, a base, a standard arising therefrom, a head mounted on and connected to the upper end of the standard to permit rotation upon a vertical axis, said head being formed in two sections one of which comprises a disk and the other of which comprises a bracket including a plate and a hub portion projecting from one face, a stud carried by the hub portion and extending axially through the disk, and a clamping member upon the stud for clamping the disk and hug against relative rotation, said plate being substantially vertically arranged and adapted for insertion in the slot of an outboard motor mounting, the connection between the standard and head permitting rotation of the head upon a vertical axis.

5. In a portable stand for outboard motors

and the like, a base, a standard arising there-
from, a head connected to the upper end of
the standard, said head being formed in two
sections one of which comprises a disk and
the other of which comprises a bracket in-
cluding a plate having a hub portion pro-
jecting from one face at one edge, a stud car-
ried by the hub portion and extending axially
through the disk, a clamping member upon
the stud for clamping the disk and hub
against relative rotation, said plate being sub-
stantially vertically arranged with the hub
at the lower edge and adapted for insertion in
the slot of an outboard motor mounting, the
standard comprising a section of pipe, a union
being coupled to the upper end of the pipe
and connecting the head to the pipe, and
means between the disc and hub for limiting
the relative movement thereof upon said stud.

6. In a portable stand for outboard motors
and the like, a base, a standard arising there-
from, a head connected to the upper end of
the standard, said head being formed in two
sections one of which comprises a disk and
the other of which comprises a bracket hav-
ing a hub portion, a stud carried by the hub
portion and extending axially through the
disk, and a clamping member upon the stud
for clamping the disk and hug against rela-
tive rotation, said bracket comprising a plate
adapted for insertion in the slot of an out-
board motor mounting, the standard com-
prising a section of pipe, a union being cou-
pled to the upper end of the pipe, said disk
having a radial stem engaged in one of the
members of the union.

In testimony whereof I hereunto affix my
signature.

CLAUDE H. RANDALL.