The invention relates to tillers for outboard motors, and has for its object to provide a device of this character with means whereby the vibrations of the engine are absorbed in yieldable means carried by the tiller thereby preventing the vibrations from being communicated to the hand of the person steering the boat, which vibrations, especially on long trips where long periods of steering is necessary, tire the hand and the arm of the operator and render the same more or less numb.

A further object is to pivotally connect the tiller to the tiller yoke which is carried by the engine, and to provide yieldable means between the tiller and the yoke whereby vibrations from the engine will be absorbed before they reach the tiller.

A further object is to provide an outboard motor tiller pivotally connected to a bracket carried by the tiller yoke and the tiller with outwardly extending lugs, and between which lugs and the bracket at opposite sides of the pivotal point of the tiller springs are disposed, and which springs form means for absorbing vibrations from the engine before they reach the tiller.

With the above and other objects in view the invention resides in the combination and arrangement of parts as hereinafter set forth, shown in the drawing, described and claimed, it being understood that changes in the precise embodiment of the invention may be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawing:
Figure 1 is a top plan view of an outboard motor showing the tiller applied thereto.
Figure 2 is an enlarged top plan view of the tiller and a portion of the yoke.
Figure 3 is a side elevation of the inner end of the tiller, parts being broken away to better show the structure.
Figure 4 is a plan view of the inner end of the tiller.
Figure 5 is a top plan view of the outer end of the bracket carried by the yoke.

Referring to the drawing, the numeral 1 designates a conventional form of outboard motor which is adapted to move in a vertical longitudinal and horizontal plane and is preferably of the general type shown in patent No. 1,459,754 of June 26, 1923 and issued to Louis J. Johnson. Extending outwardly from one side of the motor 1 is a tiller yoke 2, and on the bar 3 of which is rotatably as well as slidably mounted a bracket 4. The bracket 4 is provided with an arm 5 which extends towards the motor 1 and normally underlies the arm 6 of the yoke 2 for preventing downward movement of the tiller 7 but allowing free upward movement of said tiller.

Bracket 4 is provided with an outwardly extending web 8, the outer end of which is provided with enlargements 9, which enlargements are provided with spring seats 10, in which is seated one of the ends of the coiled springs 11. The tiller 7 has its inner end provided with a head 12 and spaced ears 13 and disposed between the spaced ears 13 is a boss 14 carried by the web 8 of the bracket 4, and which boss is pivotally mounted on the vertically disposed bolt 15 which extends through the ears 13 and the boss whereby said tiller may move in a transverse plane. Tiller head 12, at opposite sides thereof, is provided with outwardly extending lugs 16 at opposite sides of the pivotal connection formed by the bolt 15 and secured to one side of said lugs 16 are cups 17 in which the outer ends of the springs 11 are seated. It will be noted that a limited amount of movement of the engine 1 and the yoke 2 may take place in relation to the tiller handle 7 when the tiller is grasped and held in a fixed position by the operator, and said movement, which is caused by vibrations of the engine, will compress the springs 11, which springs will take up vibrations before it reaches the tiller 7, consequently the hand and the arm of the operator who is steering the boat and controlling the engine will not vibrate with the motor, and will not tire incident to long steering operations. Springs 11 are preferably expansion springs, hereby obviating any lost motion in the tiller except under vibrating conditions. Although springs are shown it is obvious any other material may be used, for instance rubber.

From the above it will be seen that an outboard motor tiller is provided with means whereby the vibrations of the engine will be absorbed before they reach the tiller thereby preventing constant vibration of the hand and arm of the operator. It will also be seen that the yieldable means 11 will absorb the vibrations and at the same time allow complete control of the engine during the steering operation, thereby preventing lost play.
or motion of the parts without interfering in any way with the steering operation.

The invention having been set forth what is claimed as new and useful is:

1. The combination with a marine motor rotatable in a horizontal plane for steering, a tiller pivotally connected to said motor, of yieldable connections between the tiller and motor at opposite sides of the pivotal point of and substantially parallel with the tiller and forming means whereby vibrations of the motor are absorbed before reaching the tiller.

2. The combination with a marine motor, a tiller carried by said motor, said tiller being pivotally connected to the motor, oppositely disposed lugs carried by the tiller adjacent its pivotal point, oppositely disposed lugs carried by the motor opposite the first mentioned lugs, and yieldable means interposed between said lugs normally in substantial parallelism with the tiller.

3. The combination with a marine motor, a marine motor, a bracket carried by said marine motor, said tiller being pivotally connected to the bracket, of yieldable members interposed between the tiller and the bracket at opposite sides of the pivotal point of the tiller and in normally substantial parallelism with the tiller.

4. The combination with a marine motor, a bracket carried by said motor, a tiller pivotally connected to said bracket, of coiled springs interposed between the tiller and bracket at opposite sides of the pivotal point of the tiller and in normally substantial parallelism with the tiller.

5. The combination with a marine motor, a bracket carried by said motor, a tiller, of a connection between said tiller and bracket, said connection comprising oppositely disposed lugs carried by the tiller adjacent the bracket, coiled springs interposed between the oppositely disposed lugs and the bracket and in normally substantial parallelism with the tiller, lugs carried by the tiller, said lugs being pivotally connected to the bracket between the coiled springs.

6. The combination with a marine motor, a bracket carried by said motor, a tiller, of a connection between said tiller and bracket, said connection comprising lugs carried by the tiller adjacent the bracket, yieldable members interposed between the lugs and the bracket in substantial parallelism with the tiller, and a pivotal connection between the tiller and the bracket between the yieldable members.

In testimony whereof I affix my signature.

HARRY L. JOHNSON.