W. S. HARLEY.
MOTOR CYCLE OIL TANK.
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1,090,532.

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2 SHEETS-SHEET 1.

Inventor.

William S. Harley

By Elipzard Young

Thomson.
To all whom it may concern:

Be it known that I, WILLIAM S. HARLEY, a citizen of the United States, and resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Motor-Cycle Oil-Tanks; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention refers to motorcycle oil tanks, its primary object being to provide a simple, effective and economically constructed tank of the above character, whereby the tank can be readily mounted upon the frame.

The specific object of my invention is to provide a tank that is formed in two separable longitudinally disposed sections or compartments that are adapted to sandwich with the reach-bars of a motorcycle, and to provide means for attaching the same in a nested arrangement about said reach-bars between the head and seat-mast thereof, whereby they present a unitary appearance and at the same time are rigidly held in place, each tank member being provided with the ordinary filling necks and valve-controlled feed discharge nipples.

With the above objects in view the invention consists in certain peculiarities of construction and combination of parts as set forth hereinafter with reference to the accompanying drawings and subsequently claimed.

In the drawings Figure 1 represents a side elevation of a tank embodying the features of my invention, the same being illustrated attached to the reach-bars of a motorcycle; Fig. 2, a plan view of the tank; Fig. 8, a sectional elevation of the same with parts broken away below the plane of the section to more clearly illustrate certain structural features, the said section being indicated by line 3-3 of Fig. 2, and Figs. 4 and 5, detailed cross-sections of the tank and frame members, the sections being indicated by lines 4-4 and 5-5 respectively of Fig. 3.

Referring by characters to the drawings, A represents the cluster-bracket of a steering-head and B the seat-mast cluster-bracket of a standard type of motorcycle frame, the head and mast brackets being connected by upper and lower reach-bars C, D, respectively. These reach-bars are adapted to support separable rectangular tank compartments 1 and 2, which separable compartments sandwich the reach-bars. The compartment 1 is designed to be utilized for the storage of the volatile fuel oil, while the tank compartment 2 serves as a reservoir for lubricating oil, each tank compartment being for the most part flat and in rectangular form. The top walls 3, 4, of the compartments are tapered rearwardly for a predetermined distance to conform to the oblique stretch of the upper reach-bar C, the said top walls being provided with inwardly extending flanges 3', 4', respectively, which flanges overlap each other and are nested over the upper reach-bar which serves as a suspension support for the tank members. In order to form a solid suspension base for the support of the tank compartments a longitudinally disposed strap 5 is interposed between the lower face of the inner flange 3' and the upper circular face of the reach-tube C, the said nested flanges and strap being secured to the reach-bar by retaining screws 6 that are in threaded union with the bar and thus serve to bind the several parts rigidly together.

The inner side walls 7, 7', of the tank compartments 1 and 2, at their ends, engage the opposite faces of the cluster-bracket necks A', B', that are provided for the reception of the upper and lower reach-bars and the side wall 7 of the fuel oil tank is also provided with a rectangular offset pocket 1', which pocket is nested between the reach-bars and thus fills up the intervening space, whereby the capacity of said fuel oil tank is increased, advantage being thus taken of all space so as to compactly increase the capacity of the tank, while at the same time the tank members and their contents will be suspended and practically balanced with relation to the reach tubes. It will also be observed that the upper and lower walls of the pocket 1', at their ends, will engage the bracket necks A', B', respectively, and thus assist in preventing the tank from vibrating in a vertical direction.

The lower inner corner of each tank is provided with a series of depending ears 8 for the reception of clamping bolts 9, which bolts pass under the lower reach-bar and secure the bottom portions of the tank-members in clamped engagement with said reach-bars, whereby the tank members are held rigid transversely of the frame. Hence it will be seen that in assembling the sepa-
rable tank members that they are first fitted to the opposite sides of the reach-bars with their flanges 3', 4', overlapping each other and resting upon the filler strip 5. Thereafter the retaining screws 6 are inserted to rigidly secure the tank members in their suspended position, which members now present a unitary appearance and entirely conceal the bars that are incased therebetweem. The retaining bolts 9 are then inserted whereby the tank members are securely clamped transversely to complete the assemblage.

If should be understood that each tank compartment is provided with a cap-closed filling neck 10 and a valve-controlled discharge nipple 11, which nipples are in pipe connection with the source of feed delivery and, as shown, said tank members are also provided with series of baffle-plates 12 which are connected to the outer walls of their respective compartments and also connected together by brace-strips 12' in series. The tanks are also provided with front and rear obliquely disposed baffle-plates 13. The entire assemblage of said plates serve to prevent undue sluicing of the tank contents and also serve to add rigidity to the walls of said tanks. The flanges 3', 4', of the tank compartments are recessed at one point to permit clearance of a seat-supporting bracket 14, which bracket projects from the upper reach-bar and serves as an anchorage point for a saddle-bar, not shown.

I claim:

1. In a motorcycle frame having upper and lower horizontally disposed reach-bars; the combination of an oil reservoir formed from two flat, separable tank members adapted to sandwich said bars, the tank members being provided with lapped flanges that are nested over the upper reach-bar, whereby the tank members are suspended, means for securing the top flanges to the reach-bar, and other means for transversely clamping the tank members and incased reach-bars together.

2. In a motorcycle frame having upper and lower reach-bars; the combination of an oil reservoir composed of separable tank members, flanges extending from the tank members for engagement with the upper reach-bar, means for securing the flanges to said reach-bar, an offset pocket extending from one of the tank members between the reach-bars, and means for transversely clamping the tank members to the incased bars.

3. In a motorcycle frame having upper and lower horizontally disposed reach-bars; the combination of an oil reservoir formed from duplicate flat separable tank members adapted to sandwich said bars, the tank members being provided with lapped flanges that are nested over the upper reach-bar, whereby the tank members are suspended, means for securing the top flanges to the reach-bar, ears extending from the tank members below the bottom reach-bar, and clamping bolts connecting the ears.

4. In a motorcycle frame having an upper and lower horizontally disposed reach-bar; the combination of a pair of flat, separable tank members incasing the reach-bars the same being duplicates in their exterior outlines, one of said tank members being provided with an offset pocket between the bars, and means for securing the tank members to the bars.

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee in the county of Milwaukee and State of Wisconsin in the presence of two witnesses.

WILLIAM S. HARLEY.

Witnesses:
E. J. MUELLER,
EDWIN F. CASPER.