

THE GLIDER TOW

By

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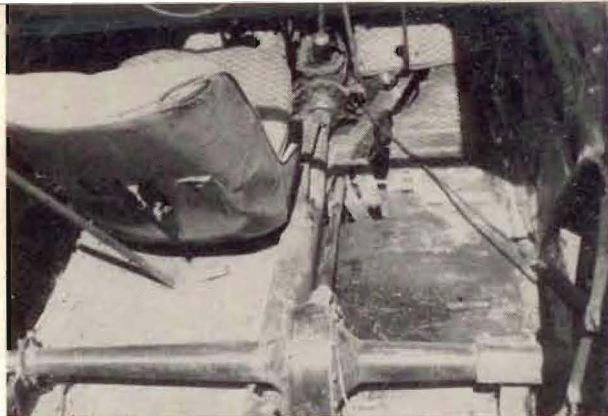
IN our opinion a great portion of the ground work will have to be eliminated before gliding and soaring will become universally popular. Such scenes as pushing a heavy winch out of the mud or up a hill,¹ or a wad of wire tangled in front of a winch²—which are typical and by no means exaggerated—must be eliminated. We who do not have a reputation to maintain get a great deal of fun just going up and sliding down again on days that soaring is out of the question, but the work that is connected with this kind of flying is all out of proportion for the time spent in the air.

The "Glider-Tow" was designed in an effort to simplify the launching of gliders and to cut the ground equipment and ground crew to a minimum. To this end it has exceeded our expectations. Best of all its simplicity makes it available to the smallest clubs at a price they can control. A club that has access to a welding outfit, an electric drill, and ordinary hand tools can almost build this unit without outside help; as we have

¹Page 9, November-December, 1944, SOARING

²Illustration Section, *Youth Must Fly*

The double transmission around which the "Glider-Tow" was built. The cutting and fitting of the transmissions together was not as difficult as it appears. They were electrically welded by an expert.



The transmission sits in the car frame on its original supports. Very little of the frame had to be cut away to make room for it. An emergency brake lever was added to the left side of the transmission as the original brake lever is used for the winch.

done. No special materials and parts were used. We used chiefly what parts were at hand and bought the remainder at very low cost.

The "Glider-Tow" was built around a double transmission which we made by cutting and fitting together two old cracked transmission cases in such a manner that both sets of sliding gears would operate from one cluster gear. In this manner we maintained a full compliment of driving gears to operate the car and added three gears (1st, 2nd and high) to drive the winch. We mounted this in the old tow truck (a 1936 Ford V8 coach that had been made into a tow truck) which at that time was out of service with a broken transmission.

No alteration of any kind was needed on the car driving side of the transmission. Torque tube, universal and drive shaft fit together just as the original. On the winch side the universal had to be set from the transmission about two inches in order for it to clear the ball joint of the car drive. This was done by welding an extension on a regular Ford universal. A Ford drive shaft, which was shortened by cutting approximately 12 inches out of the center and welding it

