

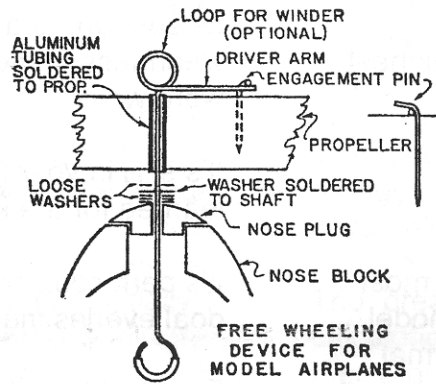
# A Free Wheeling Device For Large or Small Models

This is a variation of the inclined ramp free wheeler used by most plastic props of today and was in the March 1938 issue of Model Airplane News.

By ROBERT BOYLES

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This device has been used on several of the author's models. It works as well on 24" models as it does on 50" ones. I have found it satisfactory in every way and the propeller is allowed to turn with a minimum of friction as soon as the motor is unwound. The washer which is soldered to the propeller shaft stands the whole pull of the motor. Thus the propeller is allowed to slide freely back and forth for a distance of about 1/8 to 1/4. If the motor is wound by hand the propeller is slid forward and the engagement pin is made to engage the driver arm. As the prop is wound, the back pressure of the motor will automatically keep them engaged. When the model is in flight they will remain engaged as long as the driver arm exerts any force against the engagement pin. As soon as the motor is unwound and the driver arm stops, the engagement pin will slip away from it, since the propeller is now turned by the wind, and air pressure will slide the propeller back against the fixed washer where it will be free to revolve during the rest of the glide. The fixed washer is soldered on the shaft in such a position that when the propeller slides back against it the driver arm will just clear the engagement pin. The loose washer between the propeller and the fixed washer is merely to reduce friction. If the motor is wound with a winder the propeller need not be engaged till the model is ready for launching. I think this free wheeling device is about as foolproof, simple to make, and hard to put out of commission as such a device can be.



*PFFT Ed. Note: This concept can be also be used with either a plastic prop with a ramp, or by epoxying a spring type lock washer onto the front of any prop in place of the engagement pin.*