

## BATTERY CHARGERS



# DONT BE CAUGHT WITH A DEAD BATTERY BUILD YOUR OWN QUICK-CHARGER

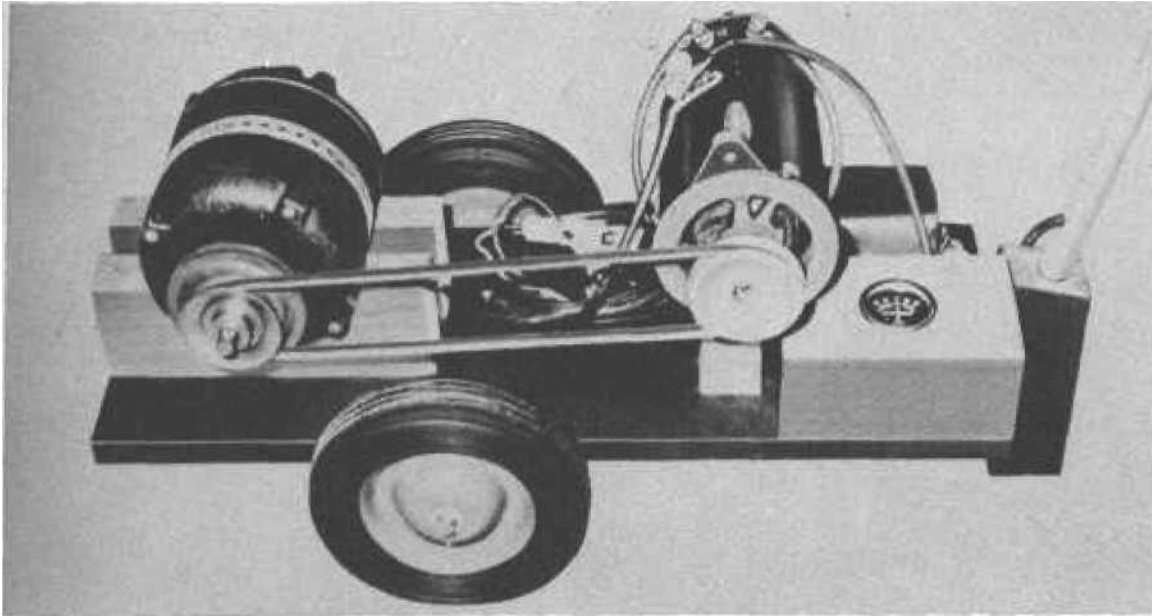
*By Patrick K. Snook*

FEW MOTORISTS are able to put back what they take out of a battery during winter driving. The extra drain of cold-morning starts, increased use of lights and added heater consumption takes its toll and unless you do lots of highway driving, you can't hope to keep the battery up to par by mere driving alone. The in-town driver, particularly, will do well to have his own quick-charger which he can use on occasion to keep up with the increased battery drain that comes with winter driving.

A simple quick-charger can be put together at little cost from odd parts that can be found in almost any junk yard. If possible, select a generator and voltage regulator from the same car—the generator being of the same voltage as that in your own car. You'd also better see if you can't buy, beg, or borrow the proper wiring dia-

you've cleaned the generator thoroughly, make sure that the pulleys on both the generator and the motor are equal in size. The carriage, or dolly, which makes the charger portable, consists of a 3/4-in. board measuring approximately 12 x 27 in, which is mounted on an axle and two 8-in. wheels and provided with a handle. Mount the motor on blocks of 2 x 4 cut to conform and bolt this assembly to the dolly. To find the proper position for the generator, bolt it to its single mounting block, slip the 3/8 x 36-in. V-belt over the pulleys and move the generator assembly back until the belt is snug when the generator inclines about 15 deg. toward the motor. This will enable you to mark the assembly's exact position. The generator then may be removed from its mounting block and the block bolted permanently to the dolly. At this point the

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the wiring, at) that remains to be done now is to fit the foot block and handle. The heavy-duty, two-wire power cable (No. 12 ga.) runs through the conduit and out of a hole drilled near the base, then under the dolly and up through a hole near the motor to which it is connected. Since most 1/4-hp, motors can be reversed make sure to connect the wiring so that the motor runs counterclockwise, viewing it from the shaft end. There are probably half a dozen different generator-regulator wiring set ups depending on the make and vintage of the car.

One possible set up is shown in the diagram below. The generator terminals as well as those on the regulator are letter coded so that there should be no problems involved. One word of caution: On some models the field terminal is grounded by way of a resistor to the generator shell. In this case, mount the negative lead of the battery power cable to the screw that anchors the resistor, *not to the field* terminal. The direct lead from the field terminal should be attached to the F-post of the voltage regulator. \* \* \*

