FAT-TIRE SCOOTER

FOR SPORTSMEN

Its low speed and rugged construction are ideal for wilderness travel-and those fat tires

assure a smooth ride with sure-footed traction

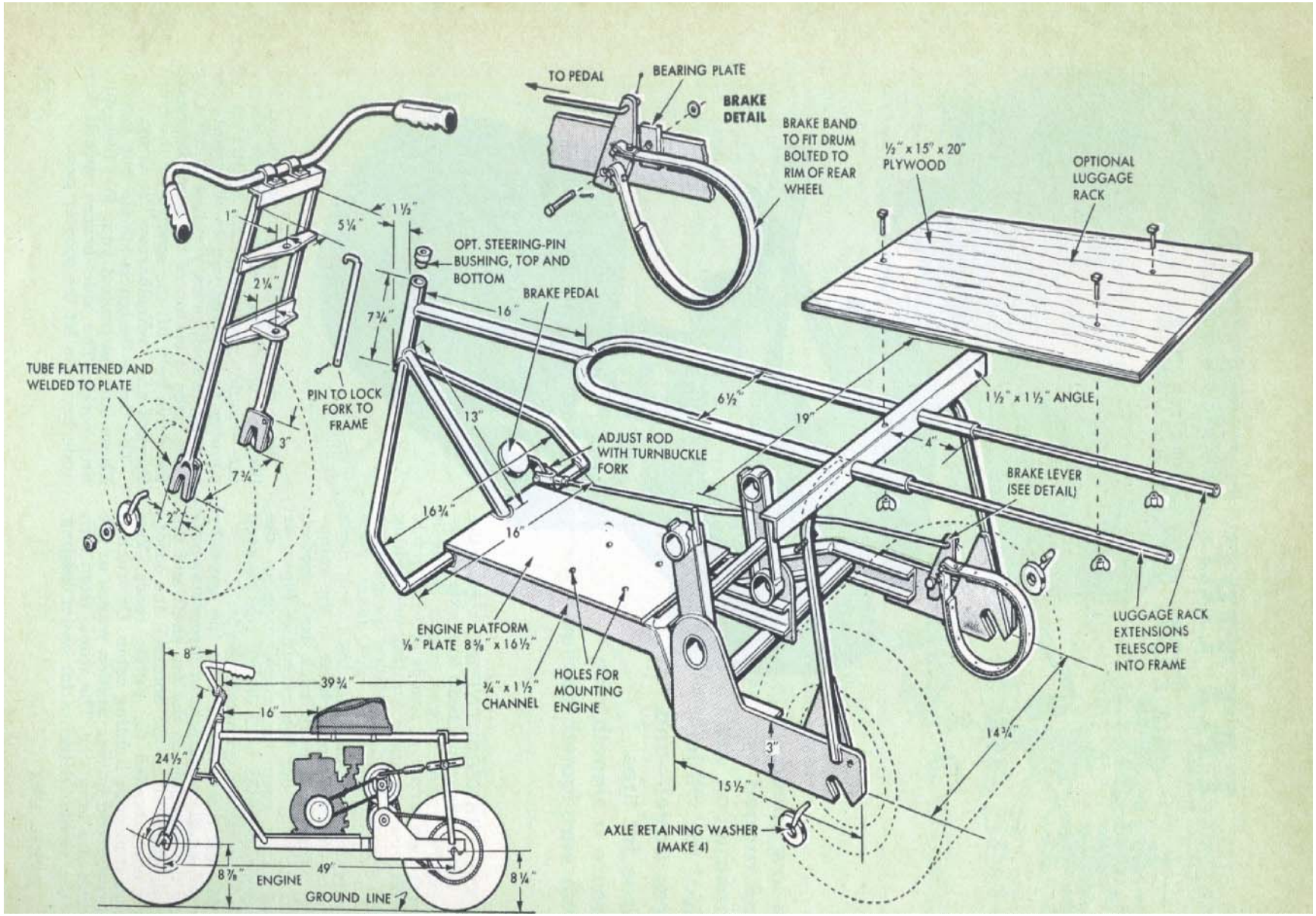
FOR TRANSPORTATION across the wilds, you can't beat this iron pack-horse. Its power-mower engine sends it over rough terrain at speeds up to 10 m.p.h. -gets you to remote hunting and fishing sites ahead of your footsore companions.

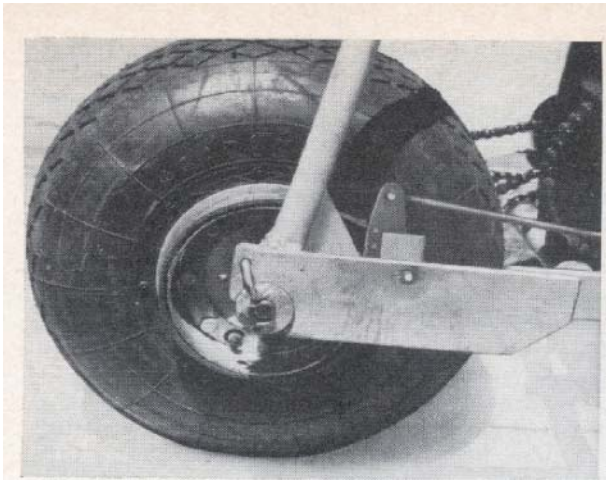
An extendable rear rack takes your equipment load off your back, and carts clumsy-to-carry game back to the camp-site. When this pack rack isn't needed, you just slip out the extension pipes, or just leave them in place, capping the frame-pipe ends with crutch tips to keep the extensions from working out.

Though it's possible to up the speed by switching the transmission sprockets (putting the 6-incher on the top shaft and the small sprocket on the bottom), the scooter's not intended for public roads. You store it at your hunting cabin. Or truck it to road's end in your station wagon or the trunk of a large car. The whole front fork of the scooter detaches for easier loading.

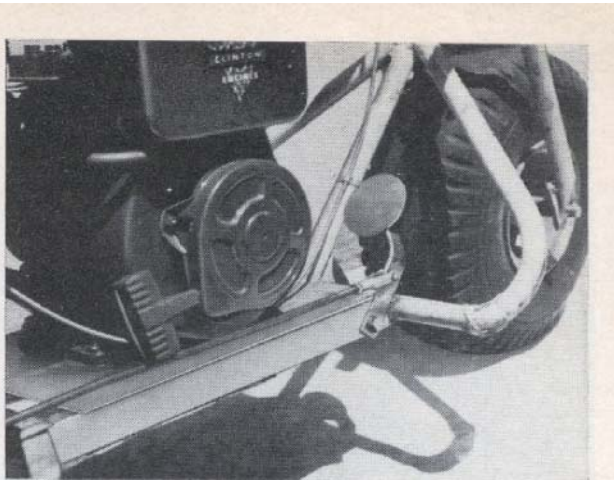
Since the over-all weight is around 150 lbs., you won't want to back-pack it very far-should you run into a stretch of country that forces you to dismount. For portage, in such cases, you just remove the fork, strap it on top of the seat, disengage the drive belt, lift the scooter by the front stirrups and "wheelbarrow" it along.

The frame design is simple but logical. Those stirrups protect your feet from jutting rocks. The side braces spread low underbrush to let the scooter pass.


TO PEDAL
BEARING PLATE
BRAKE DETAIL
BRAKE BAND TO FIT DRUM BOLTED TO RIM OF REAR WHEEL
½" x 15" x 20" PLYWOOD
OPTIONAL LUGGAGE RACK
1"
5¼"
1½"
OPT. STEERING-PIN BUSHING, TOP AND BOTTOM
2¼"
7¾"
16"
BRAKE PEDAL
TUBE FLATTENED AND WELDED TO PLATE
PIN TO LOCK FORK TO FRAME
3"
7¾"
2"
13"
6½"
19"
1½" x 1½" ANGLE
4"
ADJUST ROD WITH TURNBUCKLE FORK
BRAKE LEVER (SEE DETAIL)
16¾"
16"
ENGINE PLATFORM ⅛" PLATE 8⅜" x 16½"
¾" x 1½" CHANNEL
HOLES FOR MOUNTING ENGINE
LUGGAGE RACK EXTENSIONS TELESCOPE INTO FRAME
8"
39¾"
16"
24½"
14¾"
3"
15½"
AXLE RETAINING WASHER (MAKE 4)
8⅜"
ENGINE
49"
8¼"
GROUND LINE



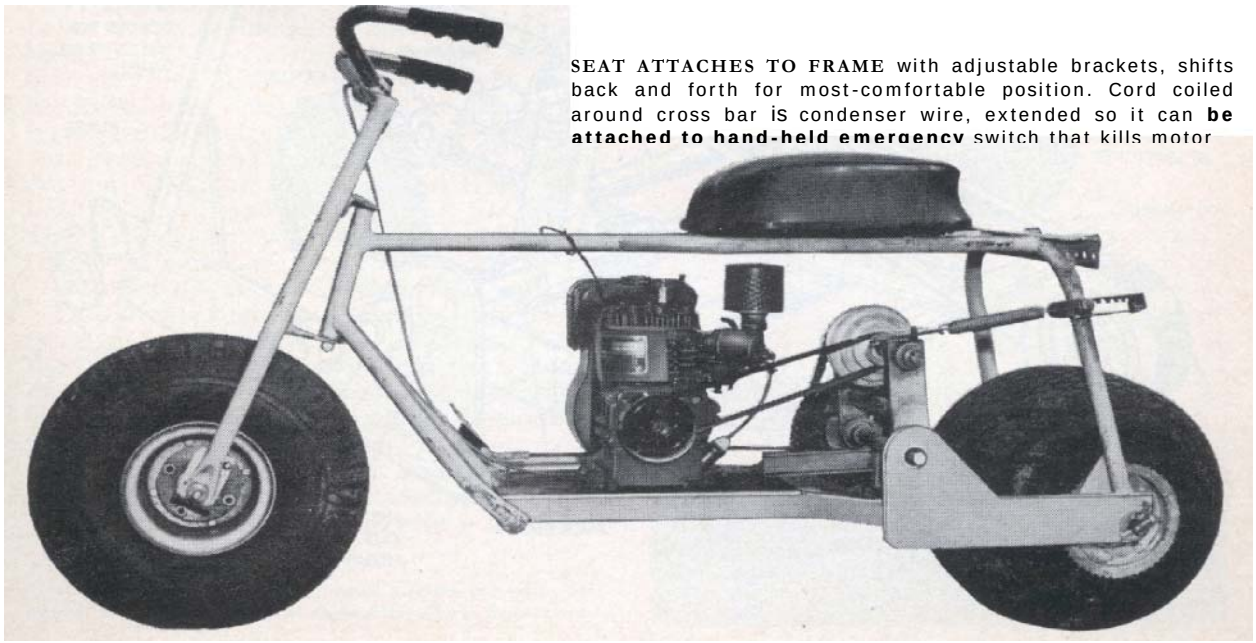
BRAKE LEVER is pivoted at top of rear wheel's hub plate, with bearing plate between for clearance. Band passes around drum bolted to wheel rim. Ends loop over pins protruding from lever's rear face



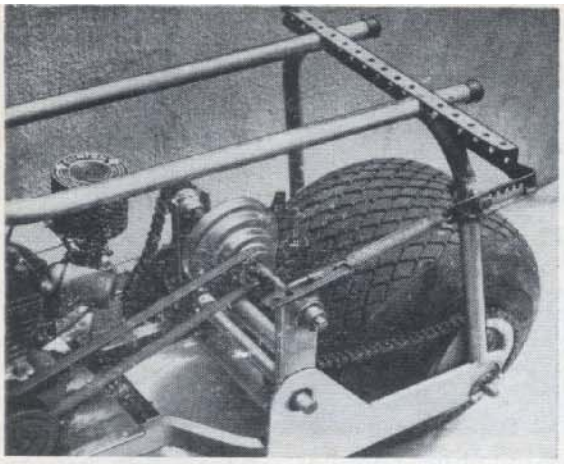
CONNECTING ROD passes forward from lever to brake pedal at right stirrup. Note haw pedal angles inward for maximum foot room-and to avoid snag**ging on** underbrush. Clevis permits rod adjustment

You needn't follow the dimensions exactly as given in the plans. The model shown is a basic machine, intended to demonstrate how simply a rugged scooter can be made. While the frame shown is welded up from 1-inch furniture tubing (for light weight) there's no reason why you couldn't use common 3/4-in. pipe or rigid conduit. Also, to avoid the bending, you could join straight lengths with angle iron. Such joints should, however, be rein-forced with gussets, since the frame must stand up to fearful strain from jolting over rough ground. You'll also need formed channel for the frame base and transmission rack and steel plate for the engine deck. It's best if axles aren't threaded at the ends, since there's too much chance of their being peened by scraping past stones. Rather, they should be retained with cotter pins and washers. Special pivoting retainers can be made by welding an L of 1/4--in. rod to one face of a washer large enough to slip onto the axle you've chosen. These retainers pivot on the outside of the hub plates for both wheels. The plates are notched to receive the axle. (The hub-nut shown on the front axle is_ an alternate treatment.)

But the main feature is that rear wheel. The 12-by-16 aircraft-type Terra-Tire has no tube and is kept at only 12 lbs. pressure. It simply cups itself around small boulders and logs in its path, smoothing your ride. (An 8-in, ground clearance keeps the frame from hanging up on these



SEAT ATTACHES TO FRAME with adjustable brackets, shifts back and forth for most-comfortable position. Cord coiled around cross bar is condenser wire, extended so it can **be attached to hand-held emergency** switch that kills motor



TRANSMISSION RACK **is suspended between support plates, pivots forward to let you switch belt to other pulley-steps to alter speed. Pulley must then be shifted right or left to realign with engine pulley**

small obstructions.) It's virtually impossible to spin such a tire in loose soil or mud, or on ice. It floats along on top of sand, making this trail-blazer a practical beach buggy, as well.

The front tire's a 6-by-6 snow-and-mud tread: you keep its tube at 15-20 lbs. pressure. Both these tires can be obtained from an industrial tire dealer or (if you're lucky) at a war surplus store, where you might also find the various pulleys and sprockets. Wide-base rims are available in both pressed steel and aluminum.

The uprights of the front fork section are also 1-in. furniture tubing or 3/4-in. pipe. The cross members, including the two pivot brackets, are angle iron (or bed rails). These are spaced so that the frame's steering column will seat snugly between them. The lock pin is then dropped through. This pin is rod, with an L of ¼-in. rod welded at the top. This hooks over the upper pivot bracket to keep the pin from dropping through to the ground. It also provides a handle to facilitate withdrawal, once the cotter pin at the opposite end has been removed.

Unless you can lap this pin into the frame column for a snug fit, it should ride within bushings pressed into both ends of the column pipe. In the model shown, ~A-in. I.D. Oilite bushings were used.

The transmission rack consists of two channel uprights with bearing housings welded at both ends. These housings are merely short lengths of pipe with an in-side diameter that will provide a snug fit for the bearings you use. The two uprights are welded to opposite ends of a pipe brace, the jack shafts are slipped through

PIVOTING TRANSMISSION RACK