

# BLOWER

## *Clears Feed Lots and Lanes*

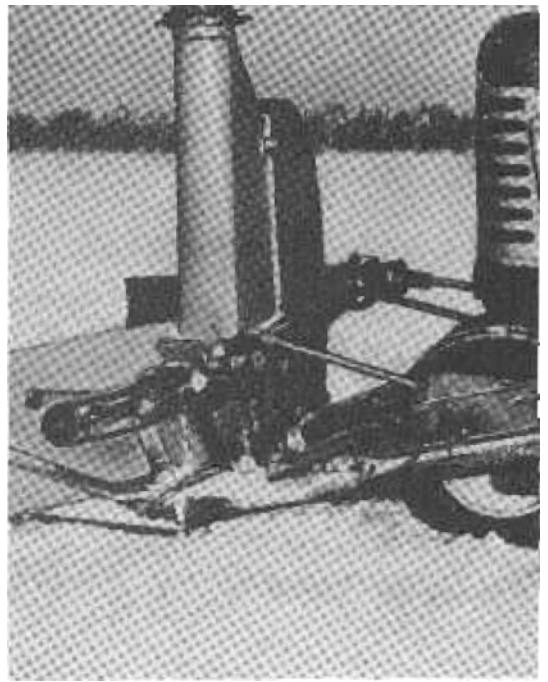
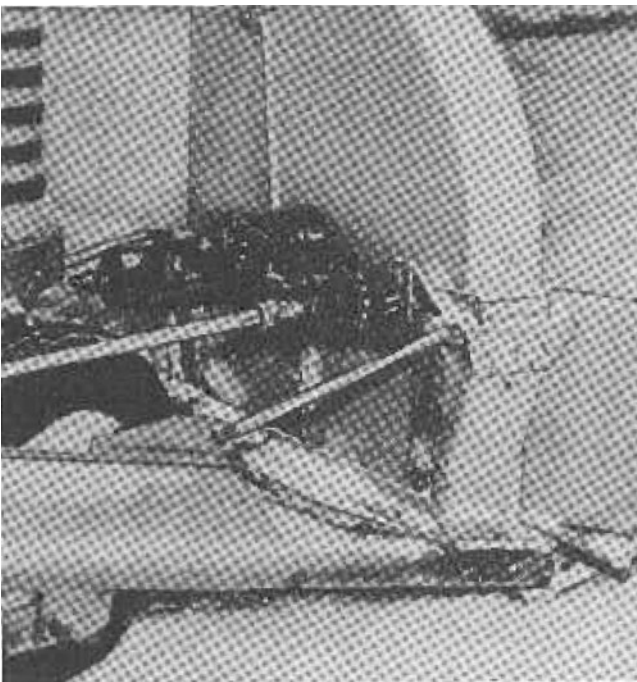
*By Paul Andre*

Head-on view of snow-blower shows clearly how auger with rods welded to blade is positioned to "condition" all snow that is forced into impeller of blower



Forward end of auxiliary drive shaft is fitted with a universal joint that couples it to a system of chains and sprockets that drive blower impeller and a short jackshaft

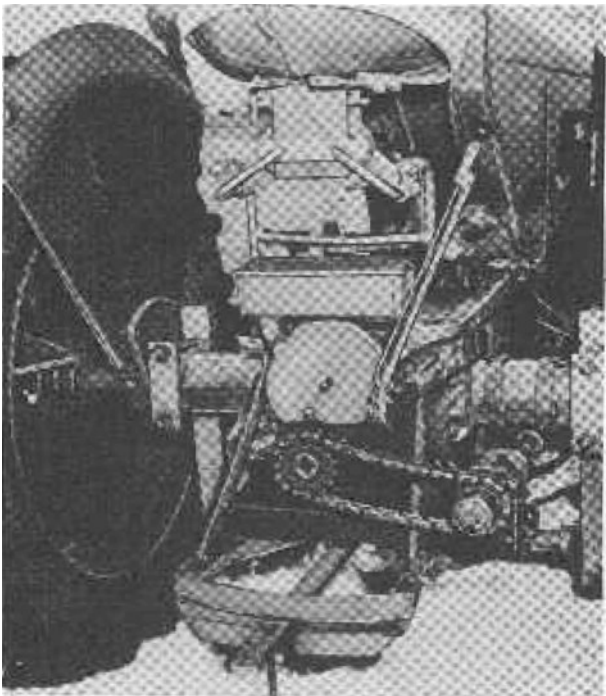
Jackshaft is geared at right angles to shaft that drives auger by means of sprockets and chain. Changing sprockets varies auger speed





**D**EEP SNOWDRIFTS on the feed lot or on any of the farm lanes no longer present a problem to Myron Hanson of Benton County, Iowa, since he built this snow-blower unit for his tractor. Cost of constructing the unit was low, as he utilized discarded farm machinery for the main components, and all welding and work was done in the farm workshop. No special tools, not found in the average farm shop, were required for the construction. The blower mechanism itself is the fan and housing of a unit originally used to blow hay and silage into the barn and silo. Positioned just in front of the blower, inside the snow scoop, is an auger of the type used in combines. It rotates in bearings bolted to brackets that are welded to the

Power for snow-blower is routed from power take-off at rear of tractor by chain and sprockets through a drive shaft located along one side of the tractor.



# SNOW

sides of the scoop. The snow scoop is fabricated from sheet steel, angles and flats, and is bolted to the blower housing. The complete snow-blower unit is bolted to the hydraulic loader, from which the scoop has been removed. For added rigidity, braces are bolted to the blower housing and to steel plates on the loader arms. The braces are lengths of pipe flattened on the end and drilled for bolts. By using the hydraulic system of the loader, the operator can adjust the snow scoop to any desired height. This latter is a practical feature when snow is being removed from an irregular surface or from an area that might contain rocks or other objects that could damage the auger blade or the impeller of the blower. In operation, the tractor is driven forward, shoving the scoop into the snow, so that it is forced into the auger. Short lengths of steel rod welded to the auger blade break up chunks of frozen snow and pieces of ice before they can enter the blower. After being "preconditioned" by the auger, the snow is forced into the whirling impeller of the blower by the continuing forward movement of the tractor, and the "center feeding" effect of the auger blade. The impeller pulverizes the snow completely and it is blown about 40 ft. to one side of the tractor.

Power to rotate the blower and auger is provided by the power take-off of the tractor. Sprockets and chain are used to deliver the power from the take-off at the rear of the tractor to a drive shaft mounted alongside the tractor. A universal joint at the forward end of the drive shaft—necessary to allow for the up-and-down adjustments of the blower assembly—connects to a system of sprockets and chains mounted on the blower housing. This system rotates the blower and a short shaft at one side of the housing. The latter shaft is geared to another shaft positioned at right angles. Sprockets and chain transfer power from this shaft to that of the auger blade. All shaft bearings are greased frequently to offset the rust problem that results when the snow packs around the bearings and melts. A suggested modification that another builder might use would be to provide a swivel action for the blower spout. This would permit blowing the snow to the opposite side in a situation where snow had to be cleared from alongside a building, and deep snow prevented driving in from the other direction. This also would permit allowing for wind direction. \* \* \*