

This machine was sold to a farmer near Mason City, Iowa, and delivered in July of that year on his farm between Mason City and Clear Lake. It was used by the owner to operate his threshing outfit throughout that season and for several subsequent seasons, and on retiring from farm work he sold it to a neighbor who continued to use it for threshing and other farm work. The last time we heard from this machine, a year or two ago, it was installed in a repair shop and factory and furnishing the power for running the machinery.

In the second year of their work in the tractor line, 1903, the company built and sold fifteen tractors. One of these was sold in the vicinity of Charles City and has operated a threshing outfit throughout every threshing season since its sale and is capable of continuing that work this season.

It was during the year 1903 that the company developed their plowing tractor and perfected the adaption of the oil cooling system to the tractor and a number of these machines are reported being still in use and giving good service today.

When the facts become generally known of the convenience and safety afforded by the oil cooling system on the tractors and the great economy af-

fecting by using this form of power for plowing, threshing and other farm work, the demand for the machines exceeded the ability of the company to produce them.

This made necessary the dropping of the engines and the devotion of the entire force and energies of the plant to the production of tractors.

The plant was operated night and day, and conditions made to buildings and facilities as rapidly as possible in the effort to supply their trade.

Soon after getting their tractor upon the market came a raise in the price of gasoline and rumors regarding a diminishing supply. This attracted the attention of the company to the use of other fuels. They therefore conducted experiments and perfected their design so that their tractors could operate just as successfully upon kerosene as upon gasoline, and since that time all Hart-Parr tractors have been built to develop just as much power and operate just as successfully upon these cheaper, lower grade fuels, as upon the more expensive gasoline.

The History of the Hart-Parr will continue in the December - January 1980 issue

The GLEANER and GLEANER- BALDWIN COMBINES

*They Cost Less
and Save More*



ALLIS-CHALMERS

BOX 512 • MILWAUKEE, WISCONSIN

Harold Hopkinson
Harold Hopkinson
Promotion Services

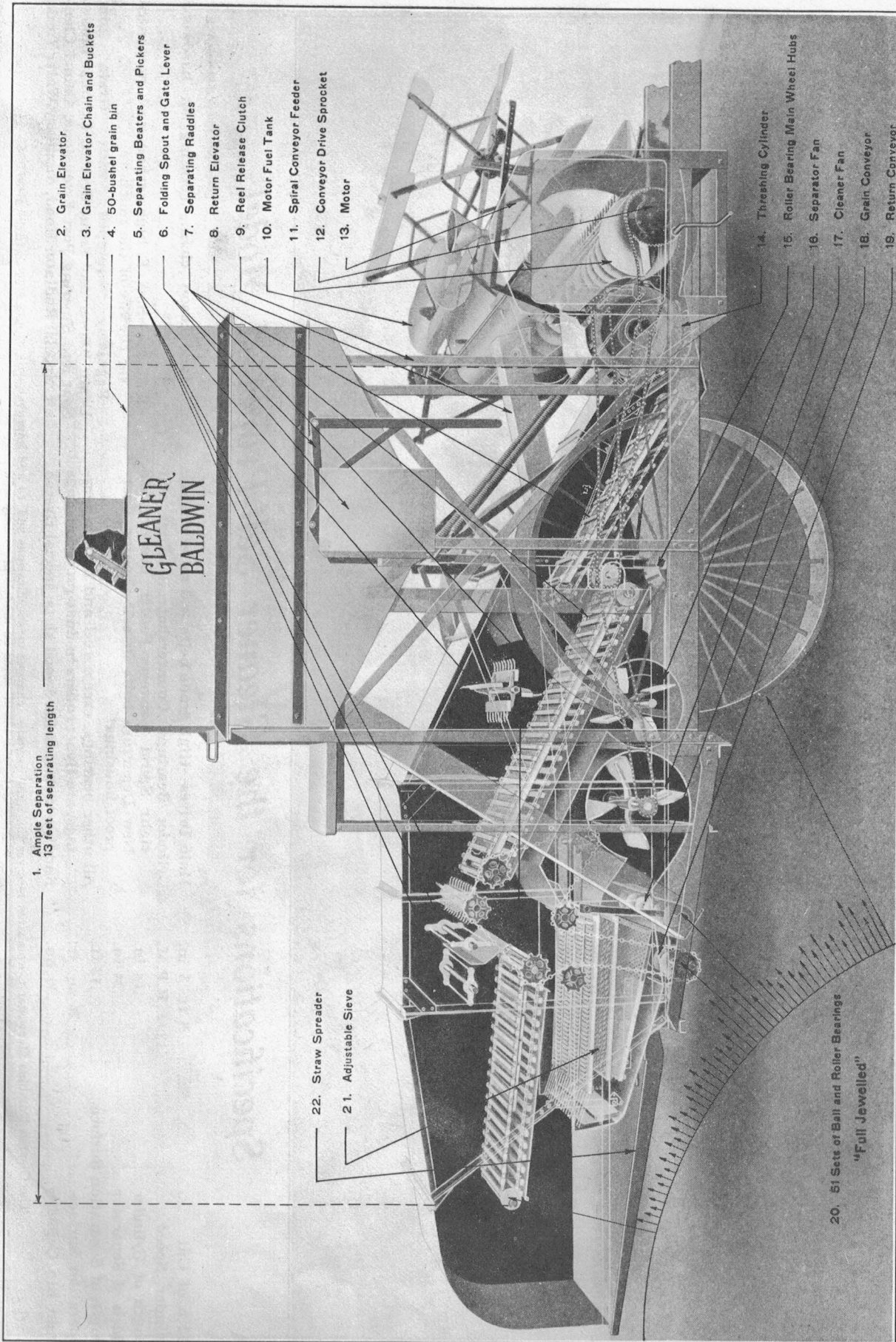
Courtesy of Joe Samson, Route 2 Box 86A,
Oberlin, Kansas 66059

In 1923, in a Wichita, Kansas machine shop the Baldwin brothers built a combine that was radically different. It was so different that the Kansans called it a gleaner instead of a "combine harvester", the popular name of the time. The unique concept and basic design have overcome the changing times since 1923.

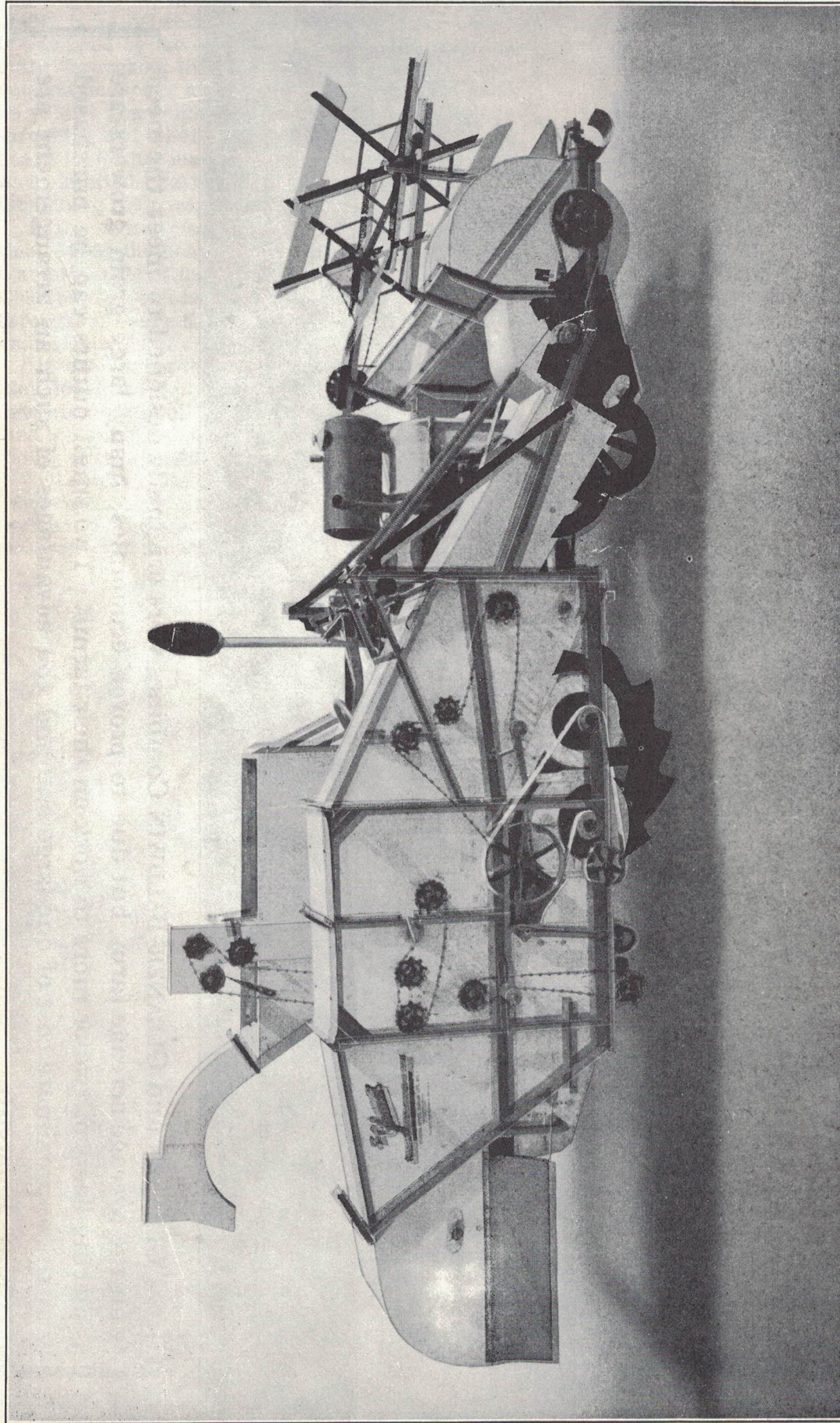
Until the Baldwin design came along, all combines had to be pulled by four-footed hay bales. The first Baldwin Gleaner was motor driven and self propelled. In 1926 the Gleaner Manufacturing Co. went to pull types. They continued various sizes and models until the self propelled was introduced in 1951 with the model A.

The early combines used canvas to convey stalks into the cylinder, the Baldwin brothers developed the auger system. The other combines used a spiked tooth cylinder the Baldwin used a rasp bar.

The Gleaner combine was acquired by Allis-Chalmers in 1955. They still use the basic design of the Baldwin Brothers.



GLEANER and GLEANER-BALDWIN Combines were originally designed to meet the need on the average acreage farm, but due to proven economies, many large grain growers are placing fleets of two or more to work on their farms. Two small outfits can be purchased at the approximate cost of one large one and the advantages of such an arrangement are readily apparent.



Specifications for the Gleaner Self-Propelled Model

Width of Cut.....	8 ft. 3 in.
Cylinder Speed.....	1200 R.P.M.
Length of Cylinder.....	18 in.
Width of Separator.....	24 in.
Length of Separation Surface.....	13 ft.
Separation Surface.....	26 sq. ft.

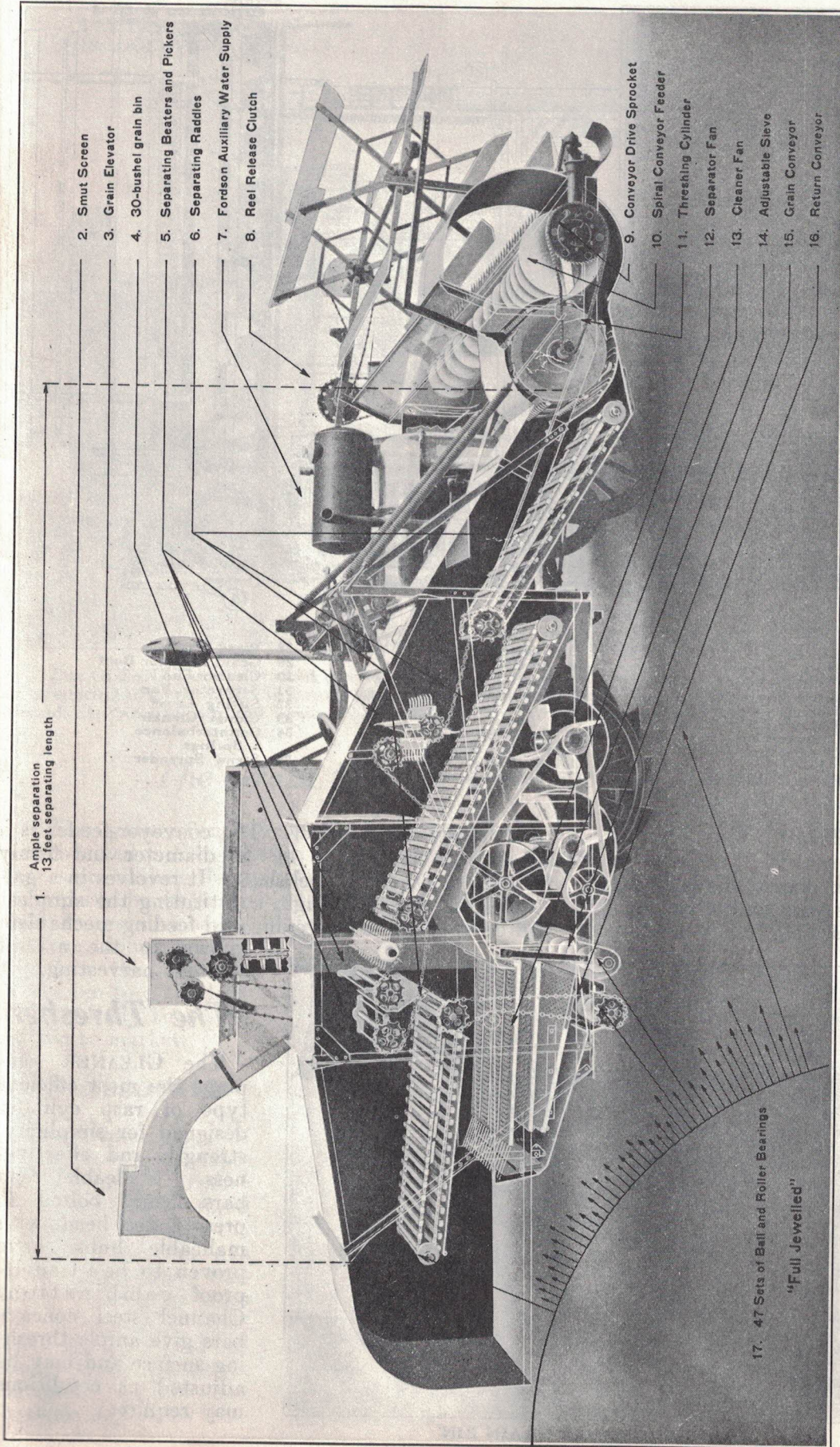
Main Drives—High grade belts and roller chains. Cylinder Bearings, Countershaft Bearings and right Spiral Conveyor-Feeder Bearing are New Departure balls in self-aligning dust-proof housings

All other bearings, except reel and blower bearings, are Hyatt rollers in dust-proof housings

to Jackson chain, running on hardwood bottoms

All Shafts—S. A. E. high carbon steel, warranted for the life of the machine

Regularly equipped with Grain Bin, Grain Blower and Smut Screen, Exhaust Elbow, Seat and Steering Post Extensions, Camel Clen-



- 2. Smut Screen
- 3. Grain Elevator
- 4. 30-bushel grain bin
- 5. Separating Beaters and Pickers
- 6. Separating Raddles
- 7. Fordson Auxiliary Water Supply
- 8. Reel Release Clutch

- 9. Conveyor Drive Sprocket
- 10. Spiral Conveyor Feeder
- 11. Threshing Cylinder
- 12. Separator Fan
- 13. Cleaner Fan
- 14. Adjustable Sieve
- 15. Grain Conveyor
- 16. Return Conveyor

17. 47 Sets of Ball and Roller Bearings
"Full Jewelled"

The Gleaner---The Ideal Harvester-Thresher

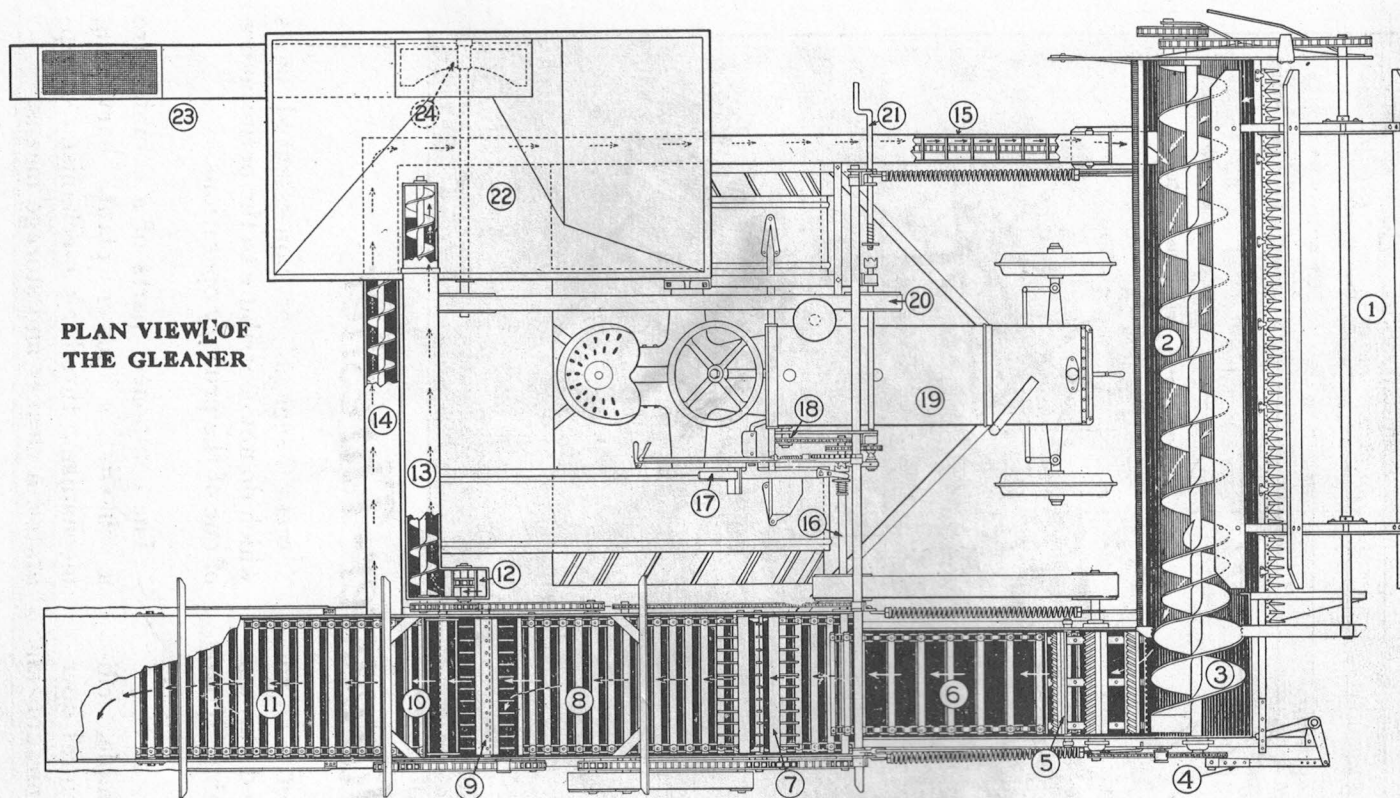
The GLEANER, mounted upon and propelled by a Fordson tractor, constitutes an ideal type of harvester-thresher. It applies to the process of combine harvesting all the power furnished by the tractor. The primary object of the harvesting operation is to remove the grain from the ripe standing stalks and transfer it to a

truck or wagon ready for market. To accomplish this the grain is passed through the processes of cutting, threshing, separating, cleaning and storing.

The GLEANER employs simple, efficient means of performing essential operations and reduces to a minimum all

"excess baggage" or non-essential parts which do not contribute to the performance of one of the primary operations.

The component parts of a combine are a chassis, a power plant, harvesting mechanism, threshing mechanism, a separator, a cleaner and storage means.

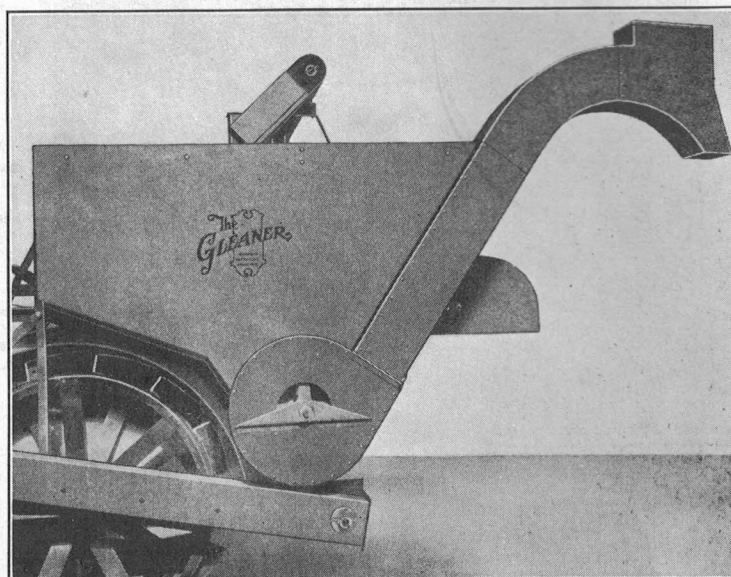


PLAN VIEW OF THE GLEANER

- | | | | |
|--------------------------|------------------------------|---------------------------|---------------------------|
| 1 Reel | 10 Rod Beaters | 19 Tractor Drive | 28 Weed Screen |
| 2 Conveyor Trough | 11 Straw Raddle | 20 Blower Drive | 29 Grain Elevator Boot |
| 3 Spiral Conveyor Feeder | 12 Grain Elevator | 21 Special Tractor Crank | 30 Cleaner Fan |
| 4 Pitman | 13 Grain Conveyor | 22 Grain Bin | 31 Separator Fan |
| 5 Threshing Cylinder | 14 Tailings Conveyor | 23 Grain Bin Blower Spout | 32 Sifting Lever |
| 6 Thresher Raddle | 15 Tailings Elevator | 24 Grain Blower | 33 Camel Cleclair |
| 7 Separator Beater | 16 Countershaft | 25 Cleaner Shoe | 34 Counterbalance Springs |
| 8 Separator Raddle | 17 Countershaft Clutch Lever | 26 No-Choke Chaffer | 35 Straw Spreader |
| 9 Rear Picker | 18 Power Take-Off | 27 Adjustable Sieve | |

The Harvester

The GLEANER reel has six blades and is driven by a detachable chain from the grain end of the conveyor-feeder. The reel may be shifted to any position required to adapt it to varying conditions of grain. The reel drive is provided with a safety clutch to avoid breakage. In operating, the reel is usually set lower and closer to the sickle than is the practice in canvas-equipped harvesters. The sickle is driven by a pitman and bell crank and does a clean job of cutting the grain with a minimum amount of trouble. Grain cut by the sickle is forced by the reel between the coils of the spiral conveyor-feeder which carries it



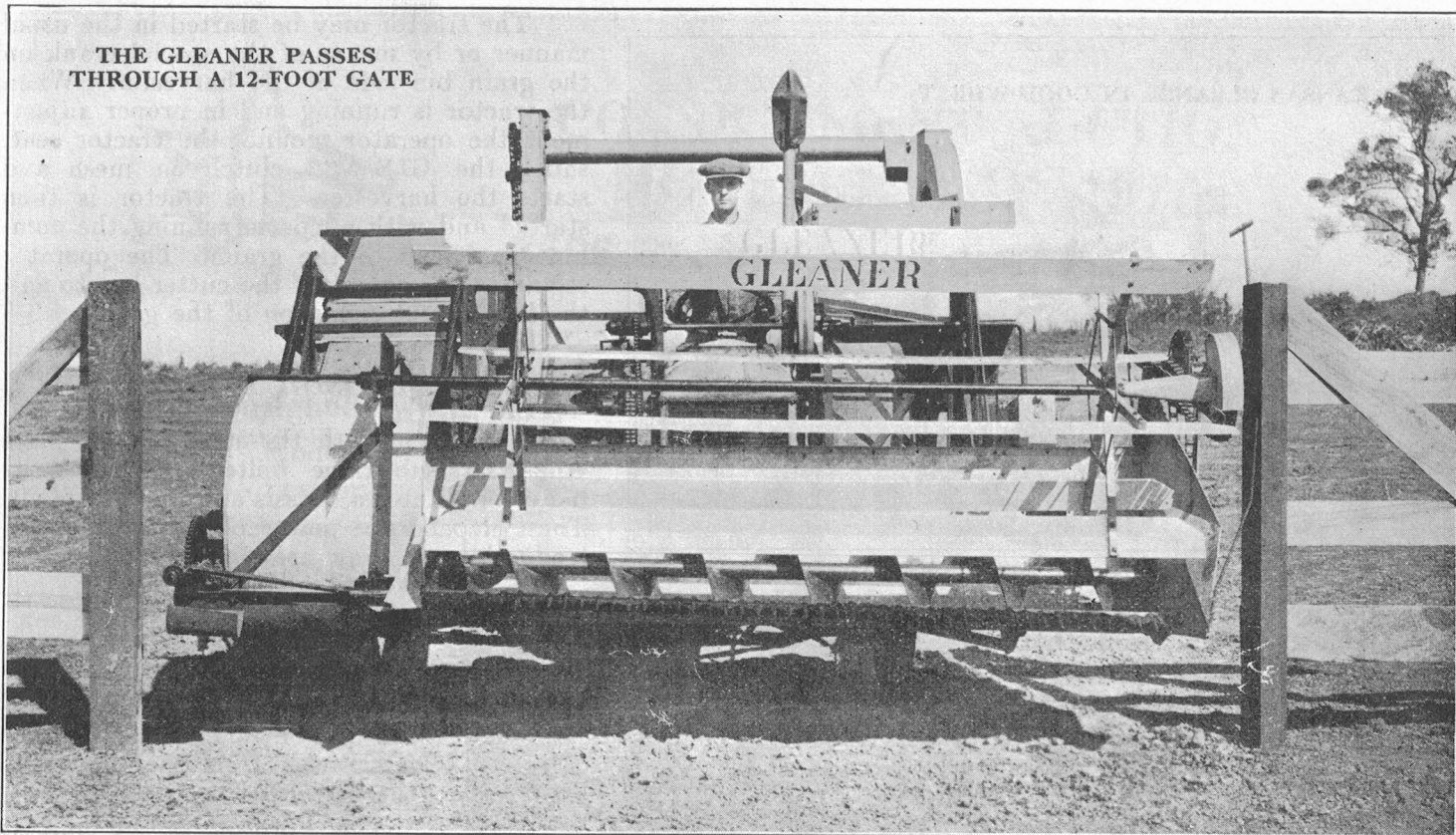
THE GLEANER GRAIN BIN

to the threshing cylinder. The conveyor-feeder is a substantial steel auger 14" in diameter and is fastened to a hollow steel shaft. It revolves in a galvanized sheet steel trough, constituting the simplest and most effective conveying and feeding mechanism known to the combine harvester.

The Threshing

The GLEANER employs the most effective type of rasp cylinder designed for simplicity, strength and efficiency. Malleable bars firmly bolted to pressed steel heads on malleable hubs have proven to be a true proof combination. Channel steel corner bars give ample threshing surface and may be adjusted as conditions may require.

THE GLEANER PASSES
THROUGH A 12-FOOT GATE



The GLEANER does not need to fold its cutter bar to get to the field. It is out in the field harvesting while other machines are preparing to go through the farm yard gate. The GLEANER can harvest every foot of the field, saving grain that is usually wasted. It can back up, cut square corners or turn around in a very small space.

The Grain Bin

The grain is cut, threshed, separated, cleaned and collected in the grain bin by the operation of the harvester. When the operator wishes to empty the grain bin he backs the harvester to his truck or wagon, shifts in gear the blower clutch, opens the grain gate and the blower quickly transfers the contents of the bin to a truck or wagon, ready to be delivered to market.

The Separator

The raddle system of separation is best adapted to field thresher purposes. The rapid moving raddles keep the threshed materials spread evenly in a thin layer. The straw rides the raddle slats while the grain is carried along on the hardwood bottoms. Pickers and beaters agitate the

straw and shake out the threshed grain. Thirteen feet of separating length extend from the cylinder to the straw exit at the rear of the separator.

Elevators

Partially threshed materials fall through the chaffer comb to the tailings conveyor, pass through the return elevator to the harvester trough and are returned to the threshing cylinder.

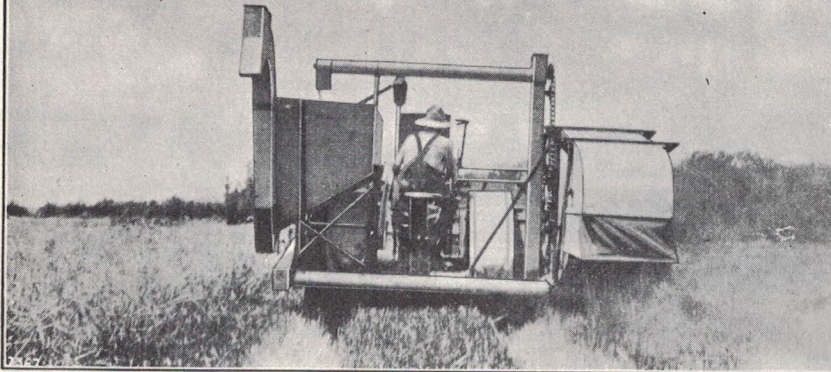
The Cleaner

The cleaner shoe of galvanized sheet steel is equipped with a no-choke chaffer, adjustable sieve, weed screen and adjustable tail board. The shoe is of the end shake type and is moved by a crank shaft and pitman. An ample supply of air for

GLEANER SACKING EQUIPMENT



A KANSAS GLEANER IN GOOD WHEAT



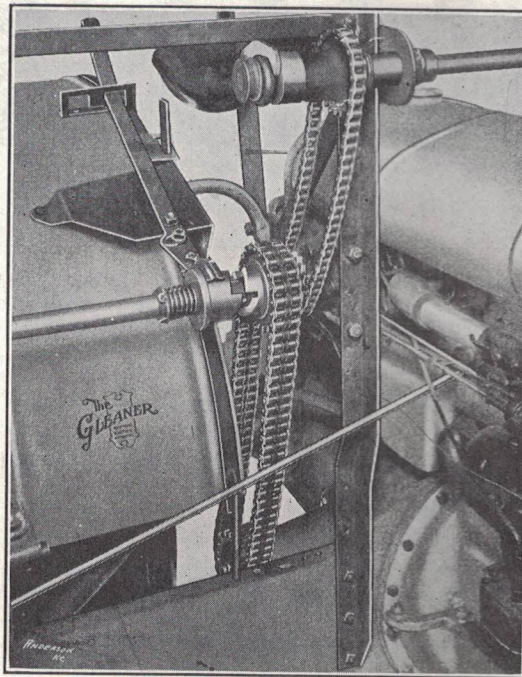
cleaning is furnished by the cleaner fan. The air from the fan may be regulated by means of shutters at the fan entrance. The hang of the shoe may be shifted so it will have the desired amount of pitch to secure good results. The slope of the chaffer and sieve can be adjusted to suit conditions. The tail board can be raised or lowered or moved near or far from the sieves as conditions warrant.

Beneath the shoe the conveyor delivers the clean grain to the foot of the elevator, chain and buckets of the grain elevator carry it upward to the grain auger which passes it into the grain bin.

Operation and Control

The harvesting and threshing unit of the combine may be quickly raised or lowered to suit the height of grain. The lifting lever is within easy reach of the operator. Long adjustable counterbalance springs equalize the weight and make lifting the cutter bar easy. The clutch shift lever for starting or stopping the harvester is near the workman's right hand. A safety lock on the tractor clutch lever prevents throwing the harvester in gear unless the tractor clutch is open.

The GLEANER operator controls every operation of the combine. Every morning the successful operator inspects and oils his harvester and has everything in readiness for continuous service.



Gleaner Power Take Off

The tractor may be started in the same manner or by means of the special clutch on the grain bin side of the harvester. When the tractor is running and in proper position the operator mounts the tractor and shifts the GLEANER clutch in mesh with the harvester. The tractor is then started and with all parts running the combine is driven to the grain. The operator regulates the height of the cutter bar to suit the height and condition of the grain.

The Fordson Power Unit

A Fordson with the strong boiler mounted on the GLEANER sub-frame bolted firmly to the tractor body constitutes a chassis and a power plant. These dependable power plants need no maintenance in production as they are known around the world.

The tractor propels the combine across the field and furnishes power for operating the harvester-thresher. The Fordson power take-off unit transfers power from the tractor to the harvester.

The Fordson power unit is driven by a bevel gear on the main shaft of the tractor in advance of the transmission. The speed of the power unit is dependent on the speed of the tractor motor and is not affected by shifting the tractor gears. The Fordson power unit therefore allows the harvester to operate at a uniform speed regardless of whether the tractor is moving on low, intermediate, high or reverse gears. The Fordson power unit is used for threshing purposes. The Fordson should be regulated by a dependable governor.

Destroys No Grain While Operating in Fields

The Fordson carrying the harvester is started as easily as the tractor alone. The combine may be driven directly into the grain without destroying any grain as the sickle cuts ahead of all tractor wheels and the harvester has no others. The GLEANER lays out the lands to advantage, cutting the grain first and leaving the green patches to be cut when ready. Advantage is taken of the lay of the land. Steep grades may be avoided. Lands may be laid out to conform to the plow furrows, thus avoiding trouble with rough ground.