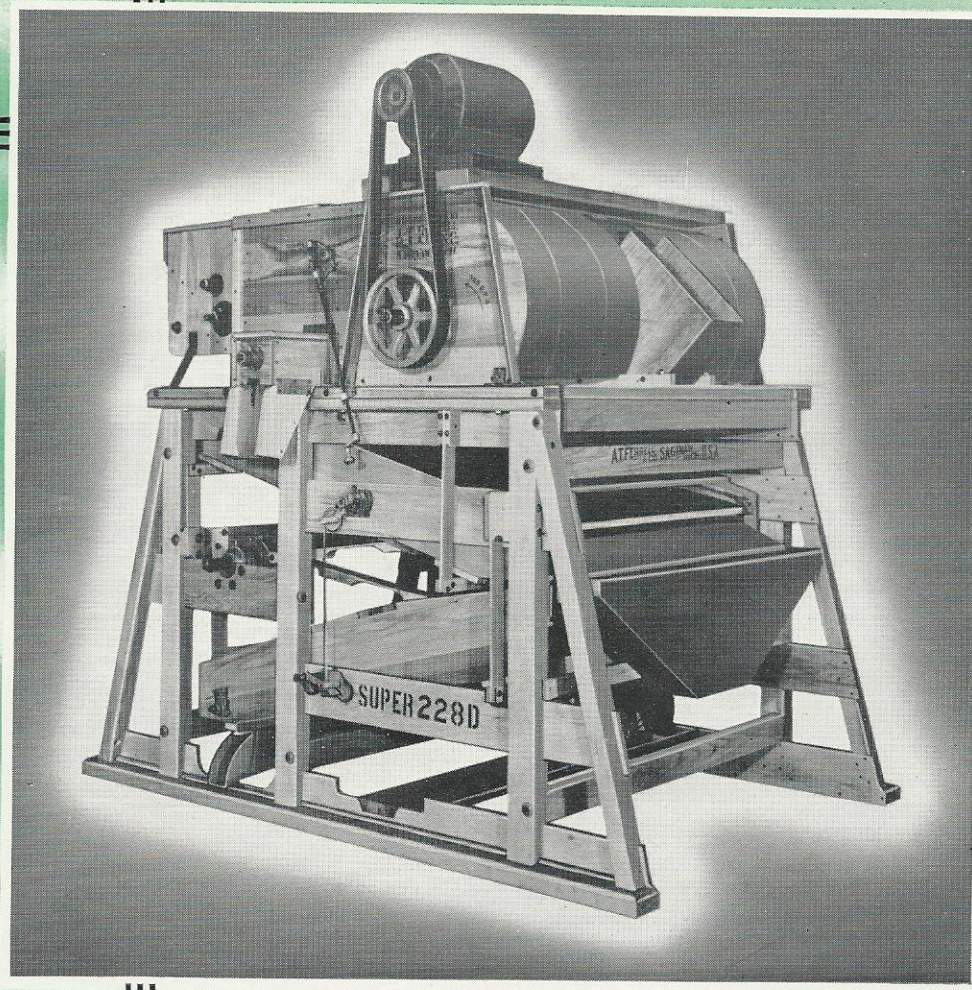
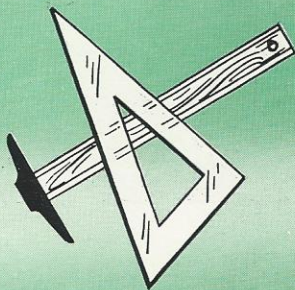


the New Clipper
SUPER 228-D



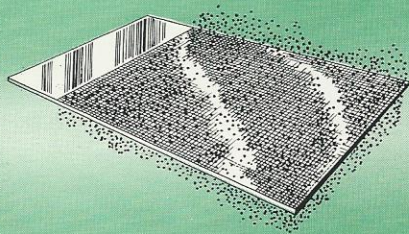
for hi capacity
all purpose
scalping

1000 Bushels per hour capacity



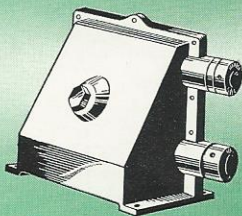
NEW DESIGN . . . CONSTRUCTION

Designed for fast, all-purpose scalping, the new Super 228-D has a capacity of up to 1,000 bushels per hour. The new versatile design also makes it possible to use the Super 228-D for selective separations when desired. The two shoes are driven by four ball bearing eccentrics with counter-balancing action to eliminate excessive vibration and cleaner frames are made from selected woods, longer lasting than metal, with through bolts and mortised joints wherever possible.



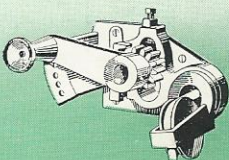
NEW SCREEN ARRANGEMENT

The large 54" x 60" top scalping screen and the 54" x 60" bottom finishing screen are mounted in individual shoes pitched in opposite directions. The new, unique screen arrangement enables the commodity to travel the full 54" x 60" screen surface for better separations without sacrificing capacity. Six screens are furnished with the Super 228-D, which can be selected from our stock of more than 189 different sizes of perforated metal and wire mesh cloth. If you prefer, send us an adequate sample of the commodities to be cleaned for our laboratory recommendations.



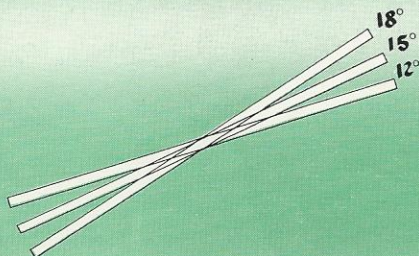
NEW SUPER-UNIT BRUSH DRIVE

The new Super-Unit Brush Drive provides smooth, silent, positive drive operations for the double traveling brushes installed under each screen to keep perforations open. The one-unit design is completely housed against dirt, grit, rust and costly extra wear and greatly minimizes the possibility of breakdowns or work stoppages.



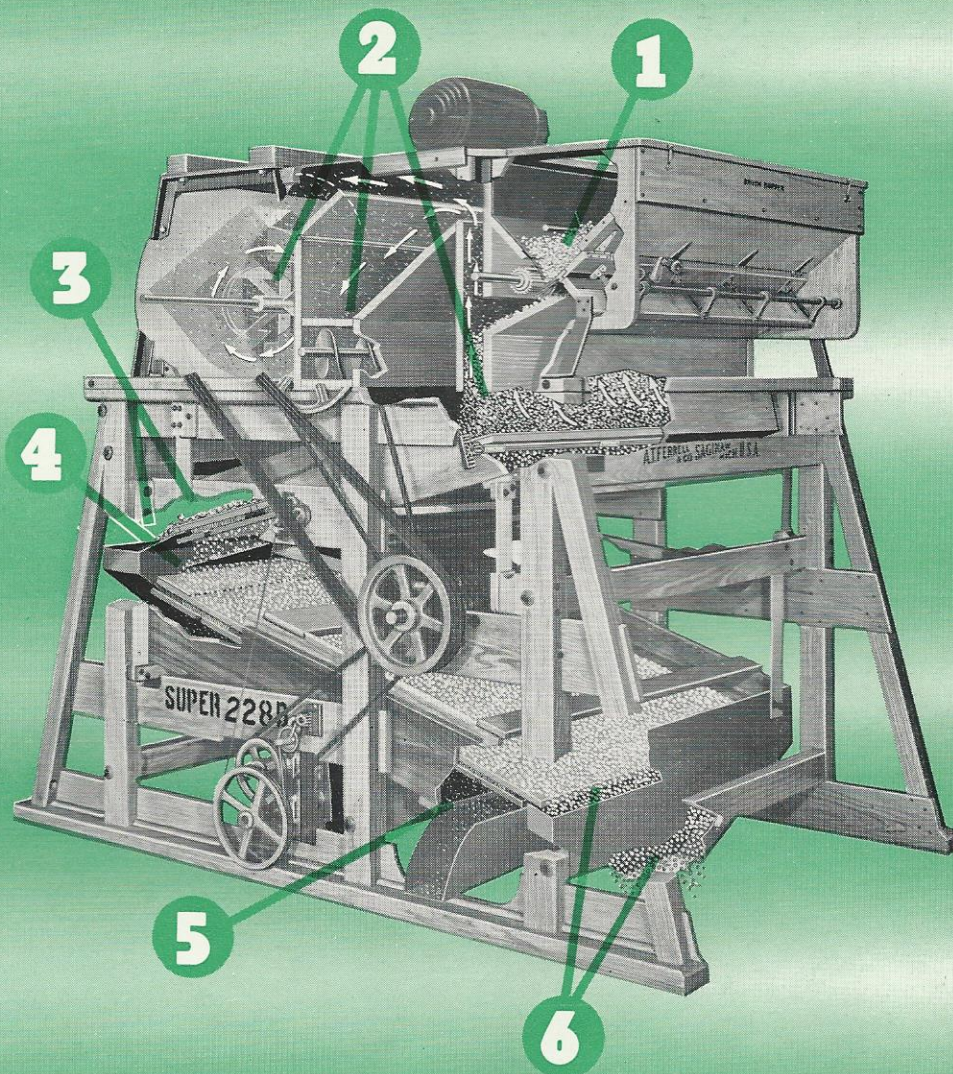
NEW BRUSH ADJUSTMENT

Instant acting . . . positive locking in position, this new instantaneous brush adjustment compensates for gradual brush wear or lowers the brushes while changing screens. Simply lift out spring plunger and drop a notch for wear adjustment or swing all the way down when changing screens. Brushes automatically tilt with the Variable Pitch Screens.



NEW VARIABLE PITCH SCREENS

Both screens are independently adjustable in pitch from a 12 to an 18 degree angle. This permits the operator to change the pitch of the screens as desired for various separating problems. Screens can be locked in any position and spouts are made to accommodate screen positions without change. Screens may be withdrawn or inserted at any angle.



OPERATIONAL DETAIL

1 The commodity first passes through the Roll Feed Brush Type Hopper. This hopper has a slowly revolving fluted roll which forces the commodity between the brush and the fluted roll. With average combined trash in the commodity, this hopper will maintain an even steady flow across the full width of the hopper and enable the Cleaner to operate at top capacity at all times.

2 See how the large suction fan, installed directly in the center of the suction fan housing, draws off most of the lightweight foreign material before it reaches the top screen! The heavier material settles in the settling chamber and is conducted to the side of the cleaner by a screw conveyor. The lighter weight material is blown out into a dust house or bin. The suction fan is quickly and easily adjusted to blow out as much or as little trash and lightweight grain as the operator desires.

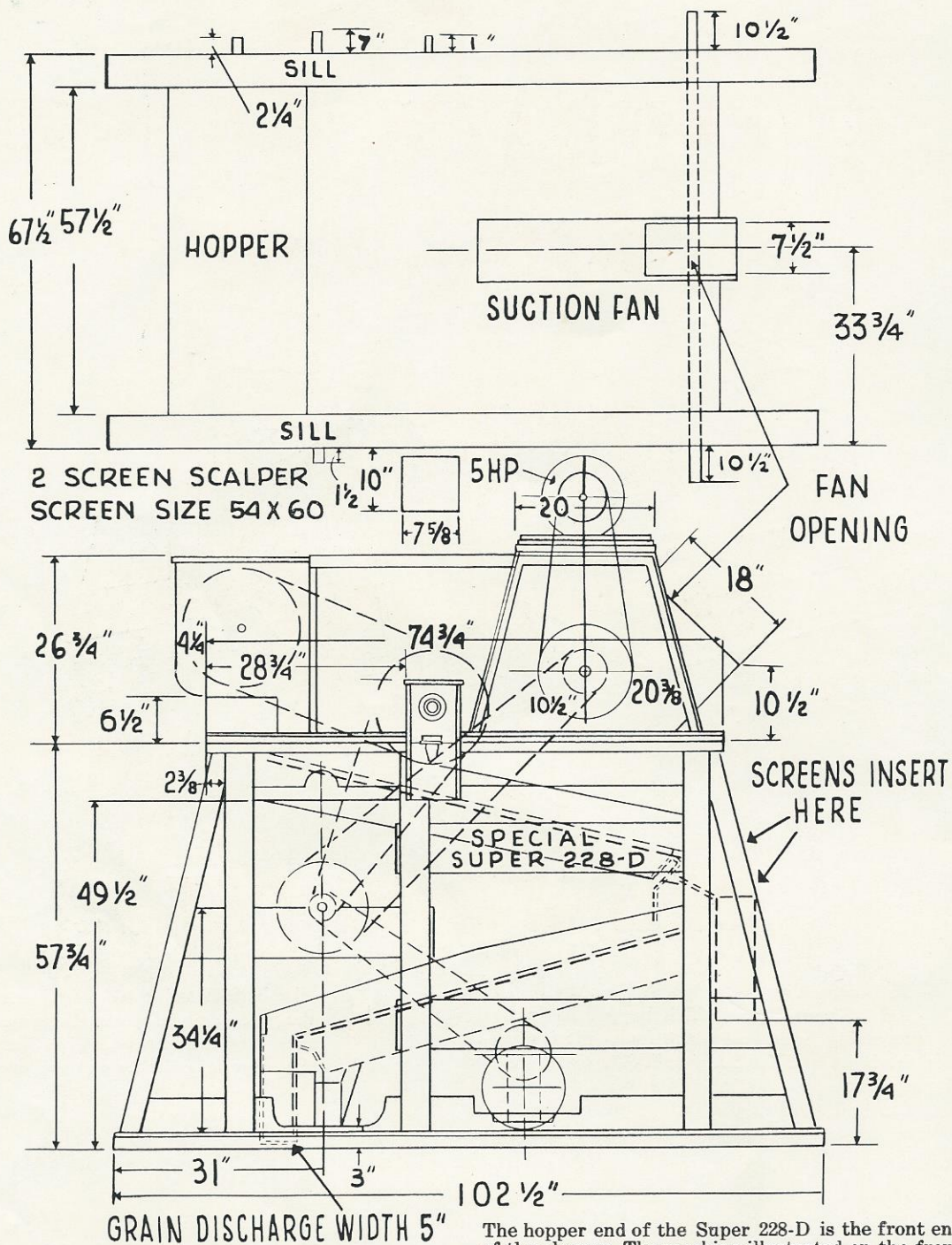
3 The top 54" x 60" screen "scalps off" large sticks, stems, stones and other bulky trash into a catchall spout. The commodity drops through onto a pan underneath the top screen and is conducted to the top of the bottom 54" x 60" finishing screen.

4 The bottom 54" x 60" finishing screen holds up the good commodity and drops the broken, undersized and poor germinative kernels and other small foreign material onto the pan underneath.

5 The smaller material which dropped through the bottom finishing screen drops onto a pan and is discharged at the side of the Cleaner.

6 The cleaned commodity passes over the bottom 54" x 60" finishing screen and discharges into the tapered discharge spout which has a 5" x 10" opening. The cut-away view above clearly indicates how the commodity travels the full 54" width and 60" length of each screen giving the commodity more screen travel for better separations without sacrificing capacity.

SPECIFICATIONS



The hopper end of the Super 228-D is the front end of the cleaner. The machine illustrated on the front cover has motor drive, spouts and controls on the right hand side.

ATF-266 5M-7/49-TP C3577

A. T. FERRELL & COMPANY

SAGINAW, MICHIGAN

THE SUPER 228-D RECEIVING SEPARATOR

**HIGH CAPACITY ROUGH-SEED
PRE-CLEANER**

**PRECISE CLEANING AT
REDUCED CAPACITIES**

- SCALPS
- SIFTS
- ASPIRATES

(Supplied in wood, as shown, or in all-steel construction as model 228-DS).



Simplicity and sturdiness of construction of this unique machine, coupled with its great versatility, has made it one of our most popular models. It is designed especially for fast, economical grain and bean conditioning with a capacity of approximately 1200 bushels per hour. It is very efficient when used as a fast scalper, sifter and aspirator ahead of a large capacity rice drier; in scalping trashy lespedeza seed prior to running over a finishing cleaner; in market cleaning grains and beans prior to loading into bins or cars . . . and many other rough scalping operations.

Here are a few examples of its successful usage:

On rough rice with coarse screens, it will clean 500 to 600 bushels per hour, and by using small top perforations and a coarse lower screen separation, rough rice can be selectively cleaned with an output of about 380 bushels per hour.

On market soybeans using a 28 or 30 round hole top screen and a number 8, 9 or 10 round hole lower screen, it will handle beans containing 10 to 20% ordinary dockage and raise the grade to a number 1 or number 2 quality with an output from 1000 to 1200 bushels per hour.

For clipping, debearding, etc., refer to P. 43 (Debearder).

One large Kansas seedsman installed this model to scalp alfalfa seed ahead of several Super 29-D seed cleaners. He states that on some of the better lots he does all the necessary cleaning with but a Super 228-D.

This model fits into any line of cleaning equipment as a fast receiver and in some plants it is even placed at the end of the run to do a final job of finishing.

On seed using a 20 or 21 round hole top screen and the proper oblong perforated lower screen (usually 11/64 x 3/4) a perfection cleaning job can be gained removing split beans, morning glories, dirt and other contaminations at an output of approximately 300 bushels per hour.

On cleaned wheat for storage or market the output runs from 1000 or 1200 bushels per hour, and by using close seed screens, clean wheat for planting purposes is produced at approximately 300 bushels per hour.

These few normal cleaning examples are mentioned to emphasize the versatility of this excellent machine.

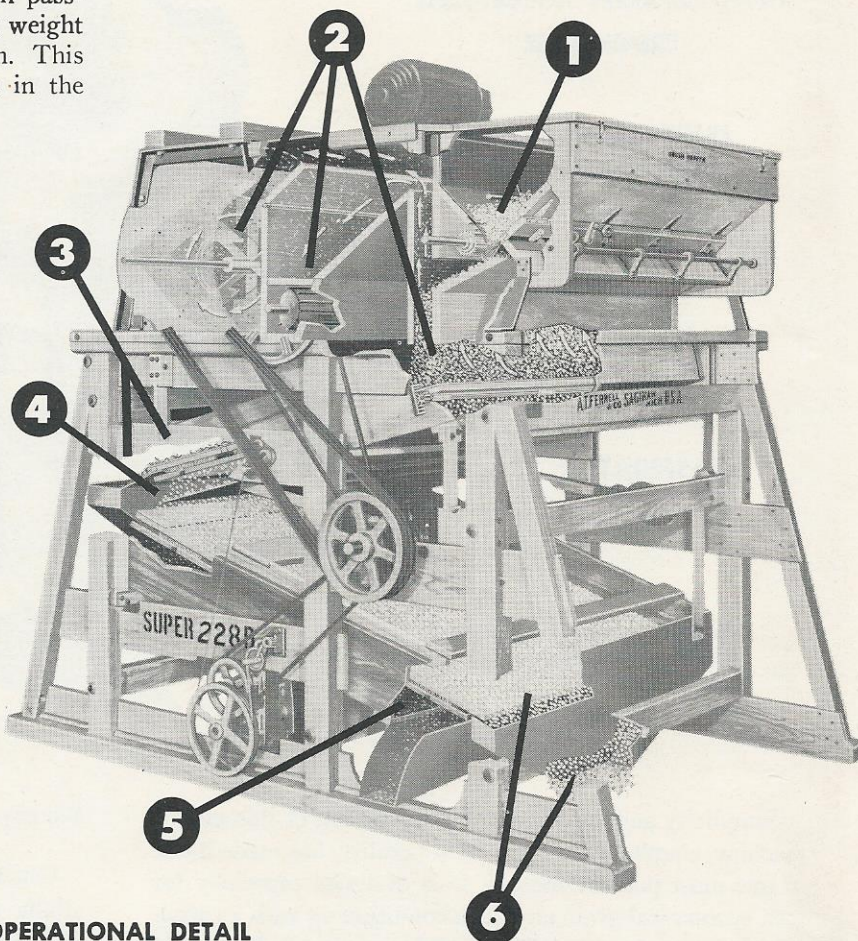
Here's a quick run down on the operation. Each factor is pin-pointed, arrowed to the cut-a-way view below to further explain where and how each function is performed; a large powerful top suction fan is mounted above the top screen to draw air up through the hopper air passage and through the seed, quickly removing light weight trash before it can contaminate the top screen. This air suction is controlled by an adjustable valve in the air passage with a desired setting made near the discharge spout where the operator can adjust the suction while watching the trash flow from the spout.

Double brushes automatically travel back and forth under each screen, keeping the perforations open. They are driven by the powerful Gear Sector-53 Brush Drive. These brushes are quickly and easily raised or lowered by the instant acting brush adjustment control lever. This feature maintains constant "bristle pressure" to compensate for gradual brush wear.

The Super 228-D has two 54" x 60" screens mounted in individual shoes which are suspended independently and are pitched in opposite directions. This special screen arrangement enables the commodity to travel over most of the entire width and length of the two large screens, which gives a better separation at high capacities. The two shoes are driven by four ball bearing eccentrics having counterbalancing action which cancels out excessive vibration. Both shoes are individually adjustable in pitch from 9 through 18 degrees. This permits the seed or grain to travel from slow to fast over the screens as is desired.

1. The commodity first passes through the Roll Feed Brush type hopper which has a slowly-revolving fluted roll to force-feed the commodity between the roll and a special tough fibre brush to prevent clogging and to maintain a steady, even flow of grain across the full top screen width.
2. **Aspirating**—The large suction fan, installed directly in the center of the cleaner, draws air up through the hopper air passage and through the seed to remove the lightweight trash before it reaches the top screen. The heavier trash taken out by this fan settles in the large settling chamber and discharges into a pan mounted on the top shoe from which it is directed to the catch-all spout at the back of the cleaner. The light dust is blown into the dust house or cyclone collector. This fan is quickly and easily adjusted by a control located near the discharge spout.
3. **Scalping**—The top 54" x 60" screen "scalps off" large sticks, stems, stones and other large bulky trash into a catch-all spout discharging across the full screen width. The commodity drops through this screen and is conducted by the pan underneath to the bottom 54" x 60" finishing screen.
4. **Finishing**—The bottom 54" x 60" finishing screen holds up the good commodity and drops the broken,

The hopper is mounted on the front end of this model. The Super 228-D is the only model in the Clipper line having the screens pull from the rear. See the illustration. This view shows the suction fan control and the bottom pan spout on the left side. Spouts and controls can be factory constructed on either side. This must be determined at the time the order is placed.



OPERATIONAL DETAIL

- undersized, and poor germinative kernels and other small foreign material to a pan underneath.
5. The material which drops through the bottom finishing screen discharges into the spout at the side of the cleaner.
6. The cleaned commodity passes over the bottom screen and discharges into the tapered discharge spout which has a 6" x 12" opening 2 inches above the floor.

For greater capacities request our new Clipper Grain Cleaner Catalog which covers capacities up to 6000 bushels per hour.

SPECIFICATIONS AND CAPACITIES

Screen size (in inches)	54 x 60
Bushels per hour—Grain	1,000
Number of screens in cleaner	2
Number of screens furnished	6
Extreme height (add 18" if motor is top mounted) (in inches)	85
Extreme length (in inches)	102½
Extreme width (in inches)	77
Length on floor (in inches)	102½
Width on floor (in inches)	68
Width between sills (in inches)	58
Height to where grain enters (in inches)	85
Height to drive pulley (in inches)	68½
Drive pulley speed (R.P.M.)	900
Horsepower required	5
Shipping weight (lbs.)	2,340

Drive shaft diameter — 1½ inches.

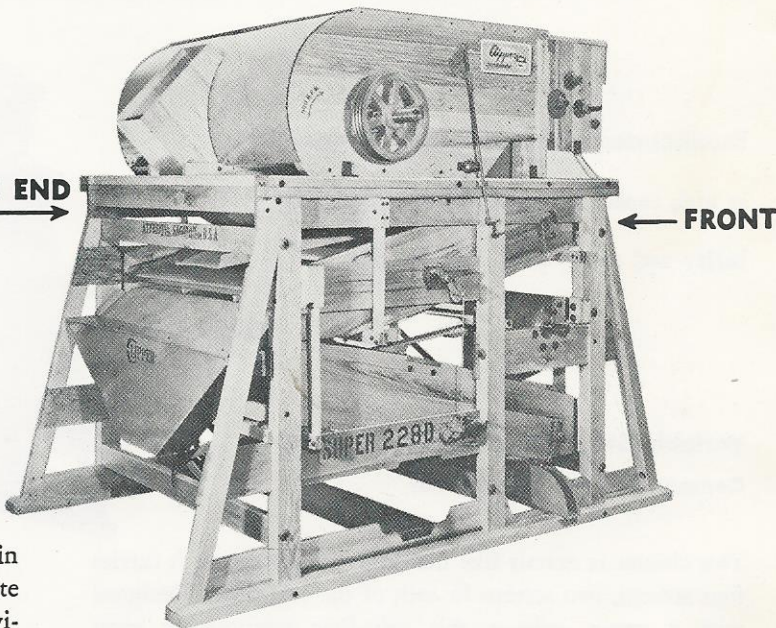
the *Clipper* SUPER 228-D RECEIVING CLEANER

HIGH CAPACITY ROUGH SEED PRE-CLEANER — PRECISE CLEANING AT REDUCED CAPACITY

Scalps • Sifts • Aspirates

This cleaner was designed for fast, economical grain and bean cleaning. It is very efficient when used as a fast scalper ahead of a dryer, in scalping trashy seed prior to finish cleaning and in market cleaning grains and beans prior to loading into bins or cars.

SCREEN END →



The Super 228-D has two 54" x 60" screens mounted in separate counter balanced shoes and pitched in opposite directions. This counter balancing eliminates excessive vibration and the screen arrangement enables the commodity to travel over the entire width and length of the screens giving better separation at high capacities. Each screen is individually adjusted in pitch.

OPERATIONAL DETAIL

- The commodity first passes through the Roll Feed Brush Hopper which has a slowly revolving fluted, spiked roll to force-feed the commodity between the roll and a special tough fibre brush to prevent clogging and to maintain a steady, even flow of grain across the full top screen width.
- *Aspirating* — The large suction fan, installed directly in the center of the cleaner, draws air up and through the hopper air passage and through the seed to remove the light weight trash before it reaches the top screen. The heavier trash taken out by this fan settles in the large settling chamber and discharges into a pan mounted on the top shoe from which it is directed to the catch-all spout at the back of the cleaner. The light dust is blown into the dust house or cyclone collector. This fan is quickly and easily adjusted by a control located near the discharge spout.
- *Scalping* — The top 54" x 60" screen scalps off large sticks, stems, stones and other large, bulky trash into a catch-all spout discharging across the full screen width. The commodity drops through this screen and is carried by the fan underneath to the bottom 54" x 60" finishing screen.

- *Finishing* — The bottom 54" x 60" finishing screen holds up the good commodity and drops the broken, undersized kernels and other small foreign material to a pan underneath.
- The material which drops through the bottom finishing screen discharges into a spout at the side of the cleaner.
- The cleaned commodity passes over the bottom screen and discharges into a tapered discharge spout which has a 6" x 12" opening 2" above the floor.
- Double brushes automatically travel back and forth under each screen, keeping the perforations open. The brush mechanism is activated by the dependable No. 80 Roller Chain Brush Drive.

Specifications and Capacities

Screen size (inches)	54 x 60
Bushels per hour — grain	1,000
No. screens in cleaner	2
No. screens furnished	6
Extreme height (add 18" if motor is top mounted) (inches)	84¼
Extreme length (inches)	102½
Extreme width (inches)	83
Width on floor (inches)	67
Width between sills (inches)	58
Height to where grain enters (inches)	84¼
Drive pulley speed (R.P.M.)	900
Horsepower required	5
Shipping weight (lbs.)	2,340