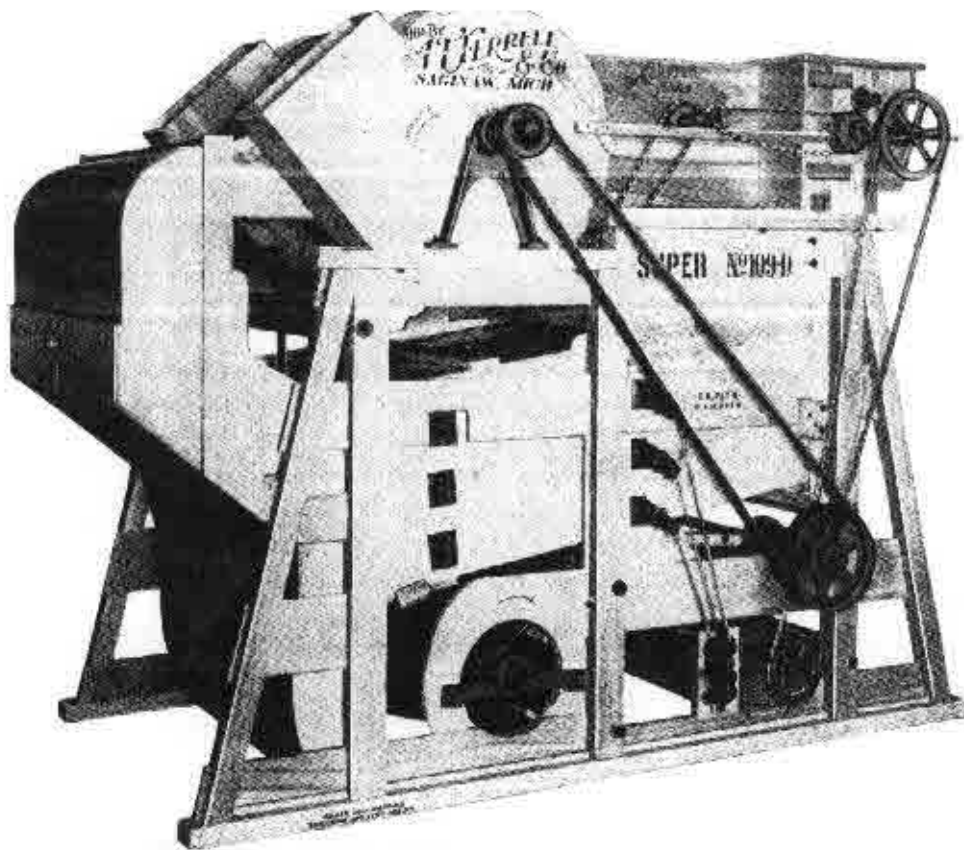


*the new* **CLIPPER**

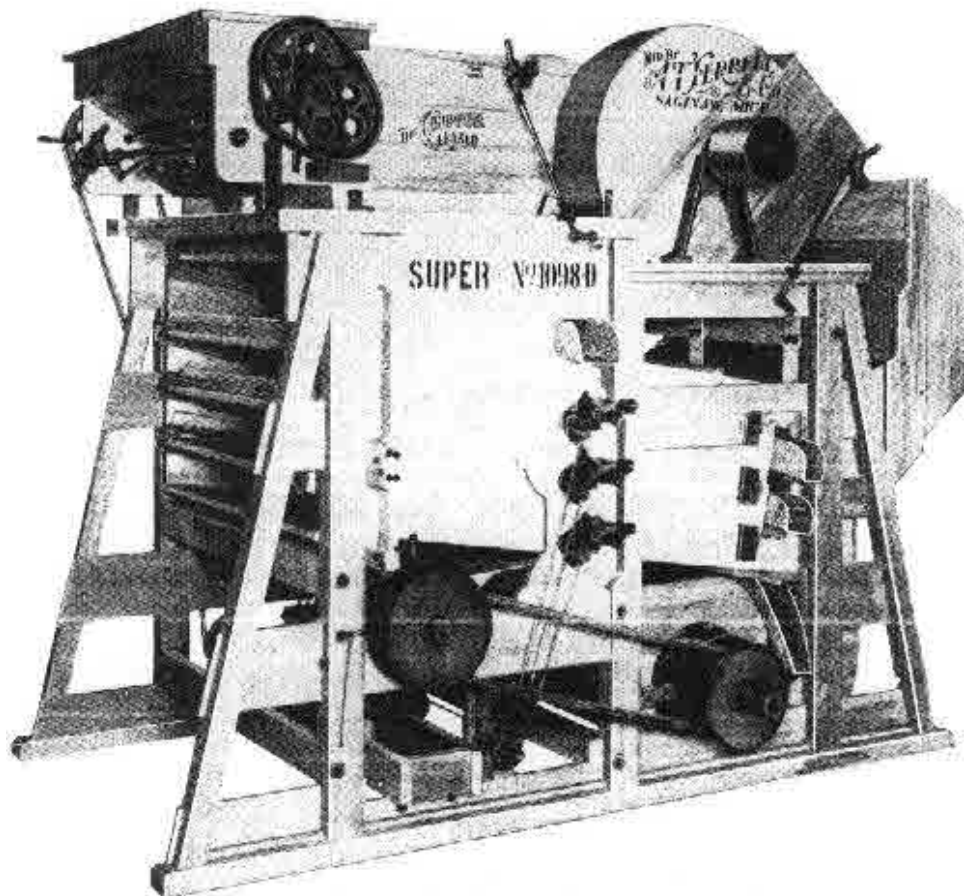
**SUPER CLEANERS**

**109D & 1098D**



**A. T. FERRELL & CO.**

**SAGINAW, MICHIGAN**



## THE NEW CLIPPER SUPER CLEANERS

The Super 1091D and Super 1098D Clipper Cleaners described in this circular are medium and large sized dustless four screen Cleaners with all the modern improvements and scientific developments which our fifty years' experience has enabled us to produce.

They have one half-length scalper and three full length screens mounted in the shoe and have a variable speed blast fan and two powerful suction fans, which makes them highly efficient on both air and screen separations. They are particularly suitable for cleaning and separating all kinds of grass seeds as well as every kind of grain. They are also successfully used for grading all kinds of seed.

## SIX CLEANING OPERATIONS

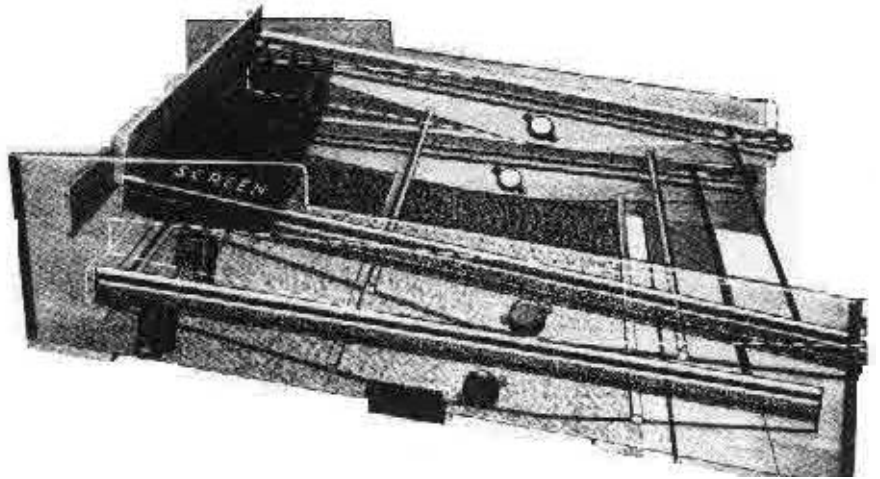
1. Grain or seed is fed into Roll Feed Hopper.
2. Passes through suction chamber where powerful suction fan removes all light bulky waste.
3. Passes through scalper screen where heavy bulky waste is screened off.
4. Passes through second screen for first intermediate separation.
5. Passes through third screen for second intermediate separation.
6. Passes over bottom screen where undersized kernels and dirt are screened out.
7. Passes into Vertical Air Column of combined blast and suction where light weight, shrunken or chaffy grains are blown out.
8. Delivered as Clean, Plump, Full Sized Kernels at the bottom of the cleaner.

**Thus in one passage through the machine the grain or seed is subjected to six separate cleaning operations using three different methods to insure perfect cleaning, namely- 1, air separation by suction; 2, separation by fiat screens; 3, a final dual air separation by combined blast and suction which is extremely accurate.** (See cut opposite.)

## ADJUSTABLE PITCH SCREENS

Each full length screen is independently adjustable in pitch from a 6 degree minimum angle to 12 degrees maximum by means of a rack and pinion and can be securely locked at any point. The brushes automatically tilt with the screens and the spouts are made to accommodate all screen positions without change.

Screen may be withdrawn or inserted at any pitch angle.



## NEW VARIABLE AIR REGULATOR

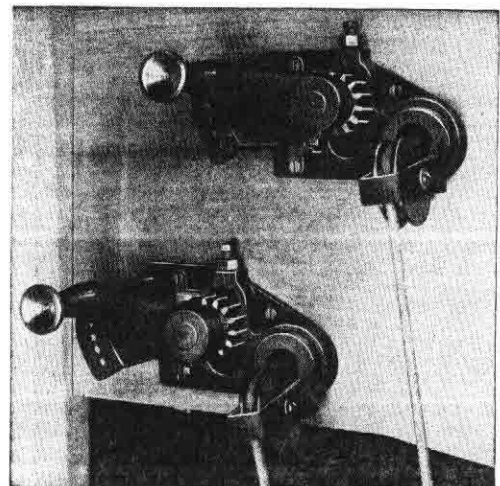
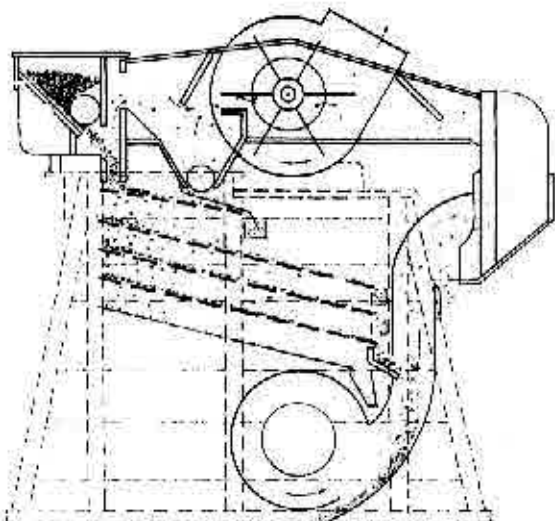
A new endless V-flat rubber and cord belt has been developed which is much quieter, more efficient, and easier to adjust, and also eliminates many small parts. A few turns of a single hand wheel adjusts the speed and blast of the fan from high to low or vice versa, and the belt tension is automatically kept at the correct amount at all times.

With this regulator the operator can adjust the air blast to the exact amount necessary to maintain any desired weight per bushel.

## NEW INSTANTANEOUS BRUSH ADJUSTMENT

Instantaneous in action, positive locking in position, simplicity of construction with no chance of getting out of order — these are the features of our latest device for raising and lowering the brushes in changing screens, and for adjusting the brushes to compensate for normal wear. Simply lift out the spring plunger and swing the lever a notch for adjustment, or all the way for lowering the brushes. That's all there is to it, and the brushes go back into the same position every time unless intentionally changed.

As the brushes do not vibrate with the screen but travel slowly sidewise across its underside, the two movements are combined to form a dual brushing action which is very effective in keeping the screen clean.



## ROLL FEED HOPPER

These cleaners are equipped with the latest improved type of roll feed hopper having a slowly revolving fluted roll which will maintain an even feed across the full width of the screen at all times and prevent any possibility of clogging regardless of the amount of chaff and straw in the grain. This allows the cleaner to be operated at full capacity at all times.

## POWERFUL SUCTION FANS

These super cleaners have two powerful suction fans, one of which is connected by an air leg directly to the hopper so that it removes all light weight trash ahead of the scalper screen, and the other fan is connected to the vertical air column of the blast fan so that the final air separation is a dual process of combined blast and suction. Each suction fan is separately controlled by a valve with its operating crank close to the spout which delivers the screenings from that air separation. The Variable Air Regulator of the blast fan is likewise close at hand, so that both air separation controls can be adjusted by the operator while watching the flow of screenings from the spouts.

Cleaners may be specified with the drive pulley, Variable Air Regulator and screening spouts on either side, but the Regulator and Spouts should be on the same side for convenience in operation. Right side of cleaner is the side on your right when you stand facing the front of cleaner (the end where the screens go in)

## CONSTRUCTION

CLIPPER Super Cleaners are built to be all that the name implies. Only the finest of materials and craftsmanship go into their construction. The frames are strongly built of selected hard woods with mortised joints and through bolts wherever possible. The screenways in the shoes are metal lined and all wood parts subject to the abrasive action of the commodity are covered with sheet metal.

All main shafts are of ground and polished steel and run on the highest grade ball bearings. All eccentrics are likewise ball bearing equipped and completely enclosed. All bearings in the brush carrier and brush cord pulleys are of self lubricating bronze.

Flat belts have been eliminated and new short center V-belt drives have been designed to take their place, with a resultant increase in efficiency and quietness in operation as well as improved appearance.

## SPECIFICATIONS

	Model 109D	Model 1098D
Code Word	Super Catamount	Super Casino
Screen Size (inches)	42 x 60	54 x 60
Bushels per Hour (seeds)	60 - 80	75 - 100
Bushels per Hour (seed grain)	100 - 150	125 - 200
Bushels per Hour (grain)	200 - 300	250 - 400
Numbers of Screens in Cleaner	4	4
Number of Screens Furnished	12	12
Extreme Height (inches)	101	101
Extreme Length (inches)	113	113
Extreme width (inches)	78	90
Length on Floor (inches)	107	107
Width on Floor (inches)	56	68
Width Between Sills (inches)	46	58
Height to Where Grain Enters (inches)	86	86
Height to Drive Shaft (inches)	74	74
Size of Drive Pulley (inches)	8 x 6	8 x 6
Speed of Drive Pulley (R.P.M.)	900	900
Horsepower Required	5	7½
Shipping Weight (pounds)	2750	3150

An 8x6 Ball Bearing Loose Pulley can be furnished at \$25.00 Extra.

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