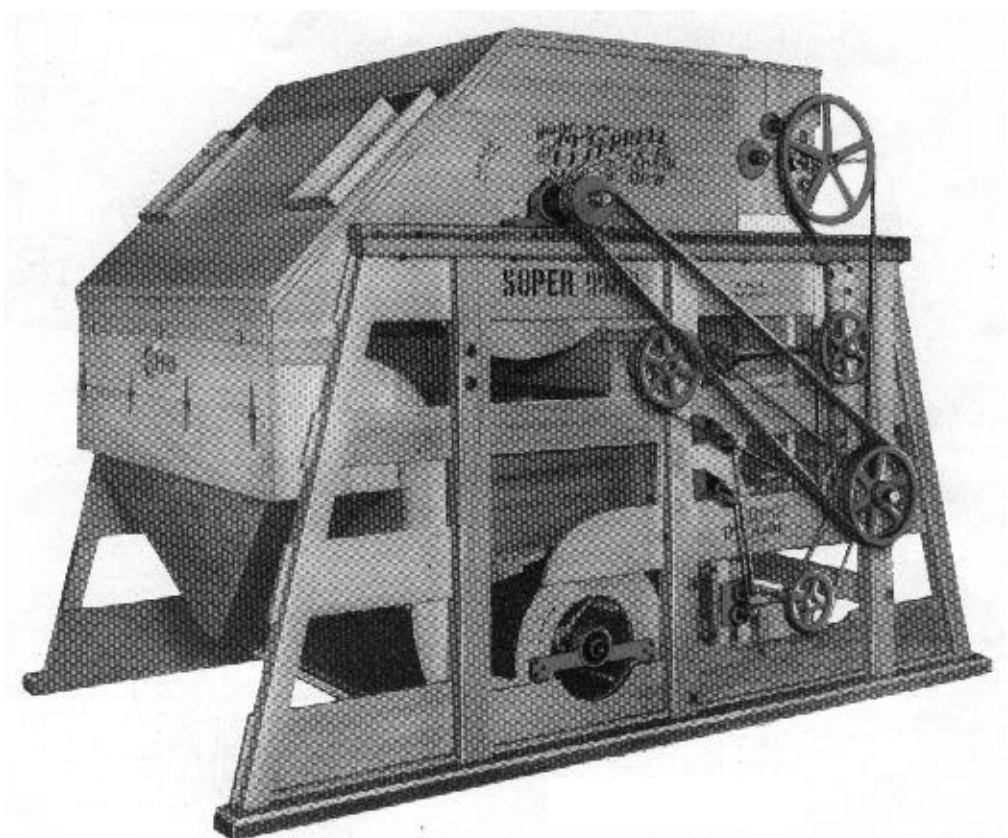


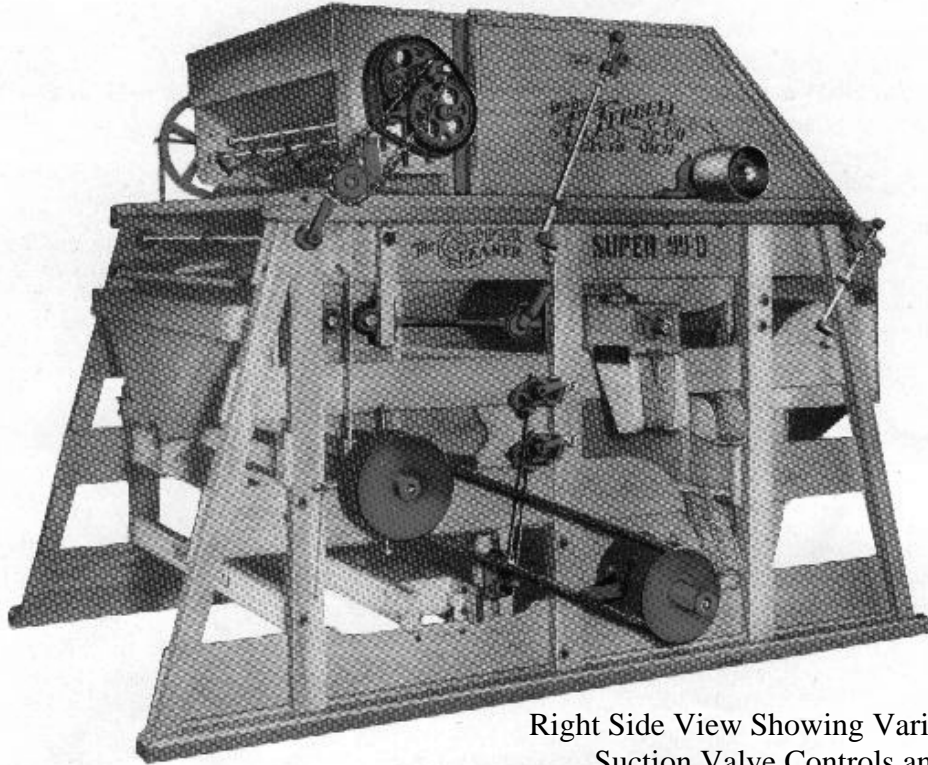
*the new* **CLIPPER**  
**SUPER BEAN CLEANERS**  
**99D & 998D**



LEFT SIDE VIEW SHOWING V BELT DRIVE FOR AUXILIARY UNITS

**A. T. FERRELL & CO.**  
**SAGINAW, MICHIGAN**

# *the new CLIPPER*



Right Side View Showing Variable Air Regulator,  
Suction Valve Controls and Screening Spout.

## THE NEW CLIPPER SUPER BEAN CLEANERS

Here is a line of machines which we believe has no equal for the profitable cleaning and grading of all varieties of beans from small whites to large limas.

Incorporated in these machines is every modern improvement and scientific development for efficient bean handling which our fifty years' experience has enabled us to produce, such as Adjustable Clay Crushing Rolls, Improved Variable Air Regulator, Improved Brush Adjusting Device, Screen Cleaning by double traveling Brushes, Ball Bearings on all Main Shafts, Powerful Thirty Inch Suction Fans and the CLIPPER Dual Air Separation Method of Combined Blast and Suction.

There is no other bean cleaner on the market which can offer all these marked advantages, and none which can equal the amazing performance which they make possible.

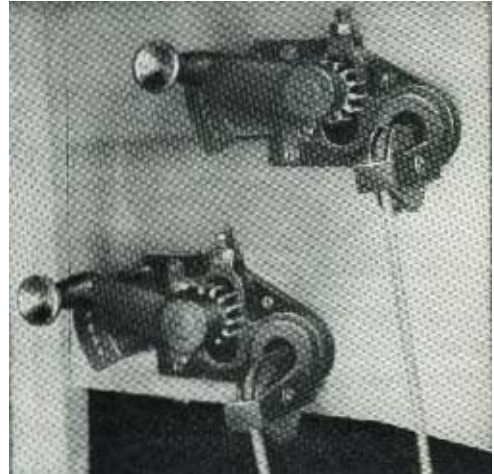
## SIX CLEANING. OPERATIONS

1. Beans enter Roll Feed Hopper,
2. Pass through Suction Chamber where pods, leaves and light bulky waste are drawn off,
3. Pass through Scalper Screen where heavy trash such as stems and stones are screened off.
4. Pass through Clay Crushing Rolls where clay lumps are crushed to powder and removed by special dirt spout,
5. Pass to second Scalper Screen where additional foreign material is removed,
6. Pass to Grading Screen where splits, small culls and dirt are screened out,
7. Pass to Vertical Air Column of Blast Fan combined with Suction where all remaining splits, light weight and partially rotted beans are blown out,
8. Delivered as Clean, Plump, Full Sized Beans at the bottom of the cleaner.

**Thus in one passage through the cleaner the beans are subjected to six separate operations for the removal of all foreign matter, splits and culls.** (See illustration opposite.)

## 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.



Showing Brush Adjustment

## NEW VARIABLE AIR REGULATOR

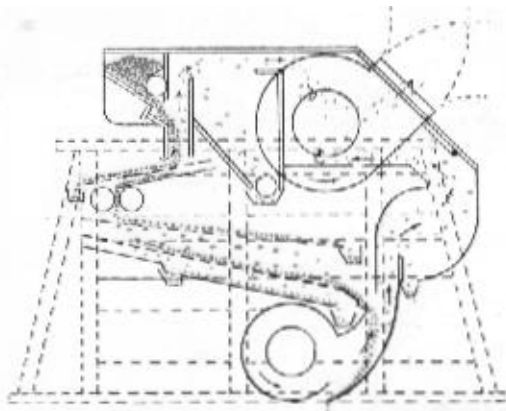
Quieter, more efficient, easier to adjust, and much simpler in construction. A new endless V- flat rubber and cord belt eliminates many small parts and produces a stronger and more efficient drive. A single handwheel adjusts one sliding disc and a properly designed spring automatically adjusts the other sliding disc in unison.

A few turns of the handwheel and the speed of the fan is changed from high to low or vice versa, or the setting can be locked at any intermediate point. Belt tension is automatically kept at the correct amount. With this regulator the operator is able to regulate the air blast to exactly the proper degree to blow out splits, partially rotted beans and all light waste.

## ADJUSTABLE CLAY CRUSHING ROLLS

The large diameter Clay Crushing Rolls are made of a special rubber composition scientifically compounded and cured to produce the right degree of hardness to crush the lumps of clay without damaging the beans and at the same time allow an extremely long life under the abrasive condition in which they must operate.

They are mounted on enclosed ball bearings of the highest grade and driven by a V-belt from the shaker shaft. They can be instantly adjusted while the machine is running by means of an eccentric which is provided with a locking device, and they may be locked in a separated position so that they are inoperative when not needed.



## EXTRA DIRT SPOUT FOR CLAY CRUSHING ROLLS

An extra spout is located in the bottom of the shoe directly under the clay crushing rolls so that the dirt from the crushed lumps of clay will fall from the screens directly into this spout and be conducted off instead of becoming mixed with the culls and split, which normally pass through the bottom screen and are spouted off at the lower end of the shoe. This saves an extra cleaning operation often necessary to separate useable culls from excessive dirt.

## POWERFUL SUCTION FANS

These Super Bean Cleaners have two powerful thirty inch 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.

## 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 pods and stems in the beans. This allows the cleaner to be operated at full capacity at all times.

## CONSTRUCTION

CLIPPER Super Bean 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.

	Super 99D	Super 998D
Screen Size, (inches) _____	42 x 60	54 x 60
Bushels of Beans per Hour	150 to 200	250 to 300
Number of Screens in Cleaner -----	3	3
Number of Screens Furnished	6 Regular, 2 Scalper	6 Regular, 2 Scalper
Extreme Height, (inches) -----	84	84
Extreme Length, (inches) -----	115	115
Extreme Width, (inches) -----	75	90
Length on Floor, (inches) -----	115	115
Width on Floor, (inches) -----	55 3/4	67 3/4
Width between Sills, (inches)	46	58
Height to where Beans enter, (inches) -----	84	84
Height to Drive (fan) Pulley, (inches)	63 1/2	63 1/2
Drive Pulley Size, (inches)	8 x 6	8 x 6
Drive Pulley Speed, (R. P. M.)	960	960
Horsepower Required -----	7 1/2	10
Shipping Weight (pounds) .....	2700	3100
Bean Discharge 36 1/2" from back end of sill.		

Model No. Super 89A is exactly the same in size and construction as the Super 99D, but has no suction fans and requires only half the power to drive it. It is a very efficient and practical cleaner where dustless operation is not required.

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

**SAGINAW, MICHIGAN**