

## THE CLIPPER EDDY-GIANT HULLER AND SCARIFIER

**Comparative tests have conclusively proven that the Clipper Eddy-Giant Huller and Scarifier produces a higher degree of scarification with less injury to the seed, than can be accomplished with any other scarifier.**

Legumes such as Sweet Clover, Alfalfa, Sericea Lespedeza, Crotalaria, Wild Winter Peas and others contain a large percentage of hard seed. These hard seed, of course, do not germinate quickly after planting because they will not absorb the moisture. To encourage faster germination and a uniform stand, the seed is abraded or scratched — the process known as scarification is a delicate job that should be attempted using only the most precise, professional equipment.

*The "secret" of the Eddy-Giant lies in the exclusive Clipper action known as "controlled centrifugal pressure." This concept is in no respect like the seed-damaging "impact principle" employed by lower priced scarifiers.*

This unique "centrifugal pressure" function is in effect comparable to rubbing off the thin skin of a peanut between the fore finger and the thumb.

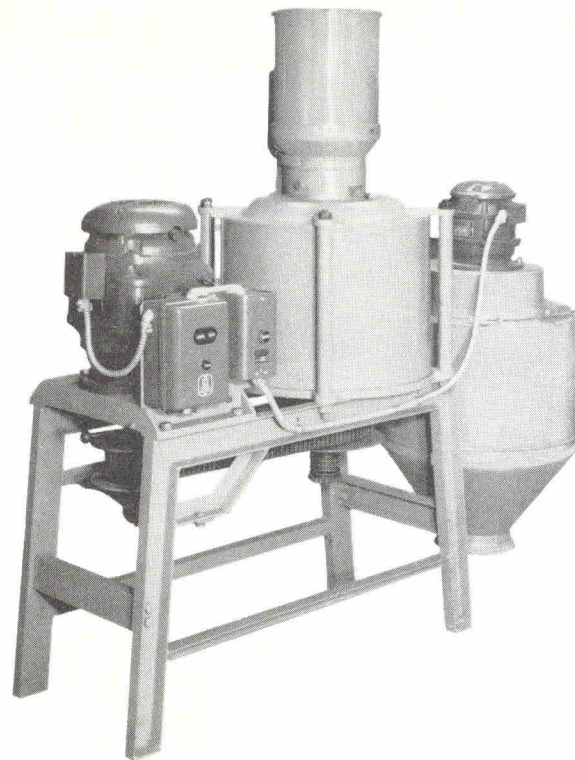
Centrifugal pressure is accomplished using revolving seed-distributing discs which direct the seeds around concave abrasive or rubber rings at a controlled rate. This is fully explained on the reverse page under "operational details." The speed of the discs is continuously adjustable from 500 to 2800 revolutions per minute permitting precise settings for each particular lot of seed.

One set of carborundum concaves is supplied. A set of rubber concaves can be furnished at extra cost adding versatility to the machine.

Many legumes require *hulling only*, others *scarification only*, while some such as Sweet Clover and Sericea Lespedeza have an outer hull which must be removed before scarification requiring *both hulling and scarification*. The following lists a few examples of each category:

### Using Rubber Concaves

- Legumes and Grasses hulled but not scarified —  
Korean, Kobe, Common and Bi-color Lespedeza and Zoysia Japonica.



### Using Carborundum Concaves

- Legumes scarified but not hulled —  
Wild Winter Peas, Hairy Indigo, Alfalfa, White Clover, Sub Clover, Suckling Clover and Cluster Clover.

### Using Carborundum Concaves

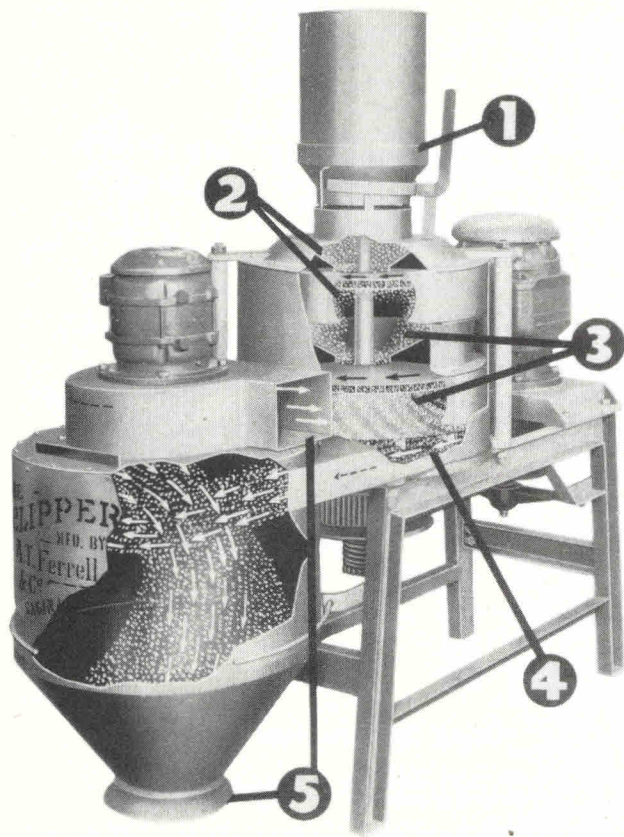
- Legumes hulled and scarified —  
Sweet Clover, Sericea Lespedeza, Crown Vetch and Black Medic.

*The Eddy-Giant is also effective when used to hull, crush or in effect alter the size or shape of fragile weed or crop seeds so they can be separated by screens. For example lots of Sweet Clover containing as much as fifty percent Foxtail or Pigeon Grass have been made comparatively clean and saleable at regular prices by hulling the Foxtail so it can be screened out of the Clover.*

Capacity of the Eddy-Giant is comparable to the output of the large size Clipper Seed Cleaners which means the hull-scarify job will not delay the regular cleaning operation. Actually, the Eddy-Giant speeds up the cleaning of Sweet Clover as it receives the very rough, poorly hulled seed and delivers it to the Cleaner in a good condition so the Cleaner can produce a finished product in one pass. In this case if the Clipper Cleaner were to receive the stock direct it would have to be re-run two or more times without ever getting the same result.

**See other side of sheet for additional information**

**OPERATIONAL DETAIL-SPECIFICATIONS**



1. The feed hopper is a funnel-shaped casting which can be raised or lowered on a screw thread by disengaging the lever provided for this purpose.
2. The seed falls from the hopper in a ring-shaped stream into the first rotating distributing disc where the first controlled centrifugal pressure action occurs. This centrifugal pressure method is used for pressing and motivating the seed against the special carborundum or rubber surfaces at an exact controlled speed—producing a higher degree of scarification or hulling with less injury to the seed—than can be found in any other huller-scarifier.
3. After the first action, the seed flows down the funnel-shaped casting to a second rotating distributing disc and the same centrifugal pressure principle is applied. The action is repeated so that the abrasiveness does not need to be severe at each step and yet the hulling and scarifying action is complete.
4. From the second abrasive ring, the seed flows into the discharge casting where the fan under the lower rotating distributing disc blows the seed into the large suction chamber.
5. The top suction fan removes the light, fine dust and the seed discharges at the bottom of the chamber.

**CONSTRUCTION**

The drive is especially designed for this machine. It consists of a vertical motor with a Variable Speed Drive connected directly to the vertical shaft of the scarifier, which eliminates the previous spiral gear drive. This new drive provides trouble-free, efficient operation and permits speeds of from 500 to 2800 RPM. The rotating distributing discs are driven directly from the Variable Speed Regulator belt and run on ball thrust bearings. The vertical three-phase, five horsepower N.E.M.A. motor is completely wired so that it is only necessary to connect to the three-phase power outlet to begin operations. A built-in switch on this motor simultaneously starts the one-half horsepower, three-phase N.E.M.A. motor which operates the suction fan.

The construction of this machine does not permit the installation of a single-phase, vertical motor; however, if only single phase power is available, a phase convertor can be furnished at additional cost to convert the three-phase motors to operate on single-phase current. The cost of this convertor and the three-phase motor is comparable to the cost of the single-phase motors.

The hulling and scarifying surfaces are designed to do uniform work and are similar to abrasive carborundum stones used in grinding. The rings are concave on the inside and, since the abrasive action only takes place against the upper part of the rings, the rings can easily

be turned over when worn giving a new, abrasive surface which, of course, adds years of service to each carborundum.

*Unless otherwise specified the scarifier will be furnished with one set of carborundum stones only. Upon request a set of rubber concaves will be supplied at nominal extra cost.*

When running a variety of commodities at different speeds a speed indicator pays for itself quickly in trial time and seed saved. It can be factory mounted near the "on-off" switch box at moderate extra cost.

The scarifier can be mounted on an extended angle frame with casters if desired, as extra.

**SPECIFICATIONS AND CAPACITIES**

Capacity (bushels per hour) . . . . .	50-100 (Capacity depends upon the commodity, its condition and the job to be done. Unhulled Sweet Clover seed will run at about 50 bushels per hour.)
Extreme length . . . . .	62"
Extreme height . . . . .	51"
Extreme width . . . . .	23 1/2"
Discharge opening width . . . . .	7 3/4"
Suction fan discharge opening width . . . . .	5"
Shipping weight (lbs.) (crated, includes 5 H.P. and 1/2 H.P. motors and drive) . . . . .	1,170