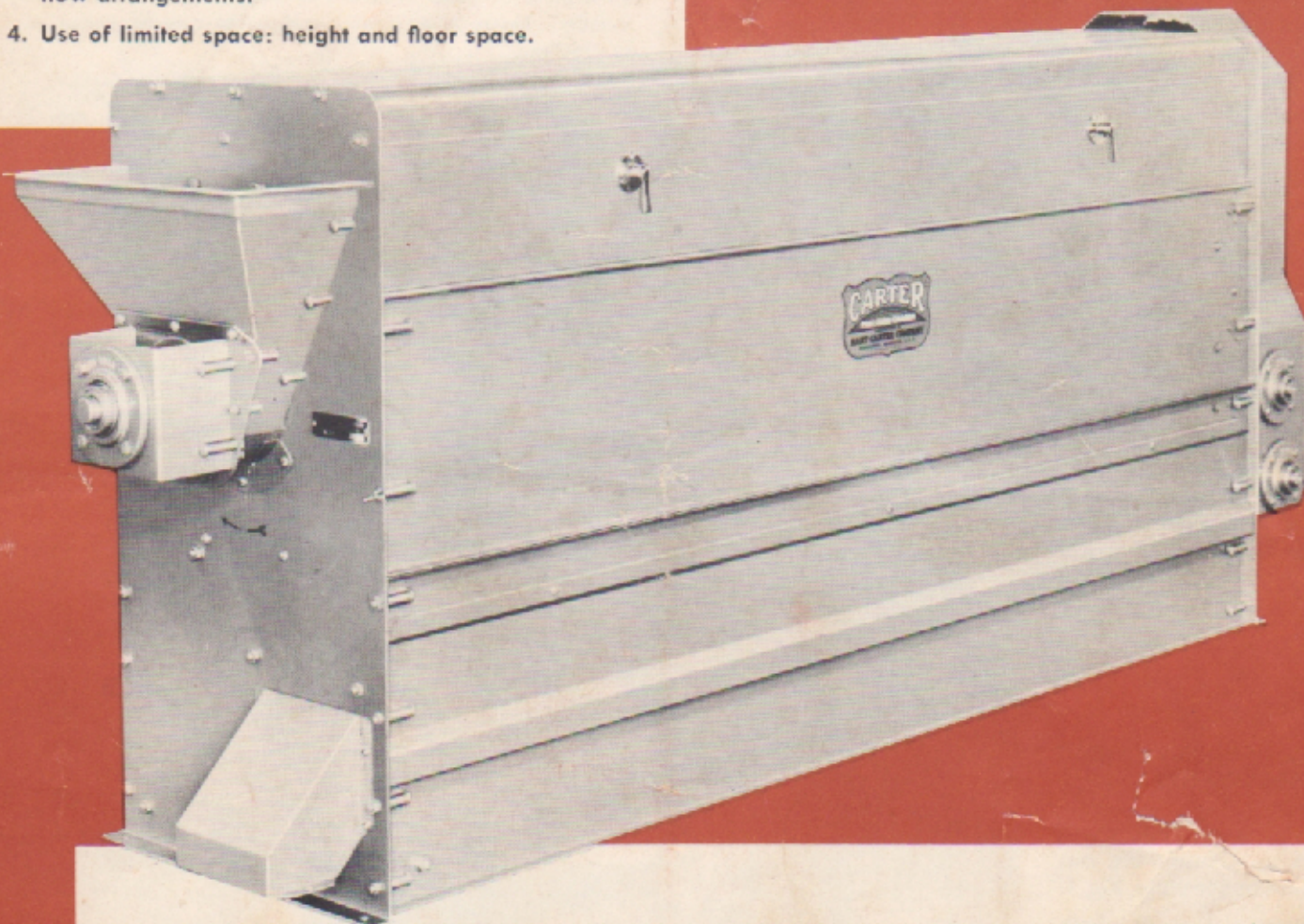


# No. 1-VT CARTER PRECISION GRADER

CPG-6 5000 11-36 PRINTED IN U.S.A.

**CARTER PRECISION GRADERS** accurately separate and size granular materials by thickness or width differences. Model No. 1-VT has special features that are particularly important in operations that require:

1. Frequent change of cylinder shells . . . when different sizes or types of perforation are required.
2. Quick, thorough clean-out between lots.
3. Units that may be combined to provide various flow arrangements.
4. Use of limited space: height and floor space.



**In meeting the requirements** listed above, the No. 1-VT Carter Precision Grader does not sacrifice any of the efficiency attained on other Precision Grader models. It uses the same grooved-and-slotted cylinder shells for *thickness* separating and sizing; and the same shells with recessed round holes for *width* sizing and separating.

Quick change of cylinder shells and/or clean-out between lots is made possible by stub-shaft devices at both ends of the machine. Two men can remove, clean out, and install

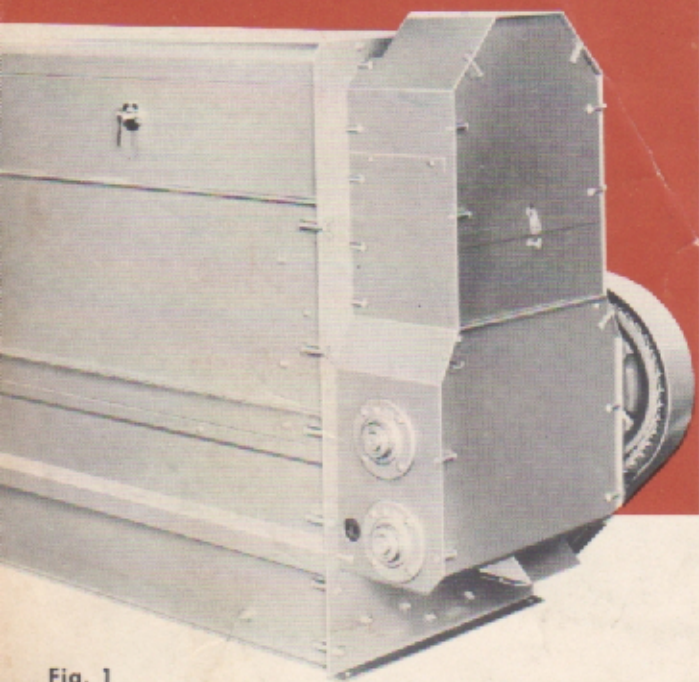
a cylinder assembly in 5 to 10 minutes.

Flexibility of flow arrangements is made possible by the use of a built-in vibrating conveyor which carries "throughs" to the head end of the machine. The "overs" are discharged directly from the tail end.

This use of a conveyor makes possible a direct feed of either the throughs or the overs to the unit below, as illustrated on page 3. Thus installing is simplified, special spouting eliminated, and the height of multiple units held to a minimum.

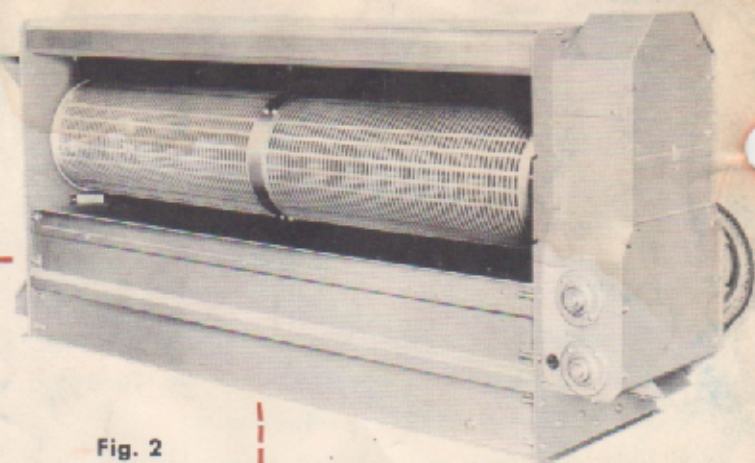


# Quick **CHANGE** OF CYLINDER SHELLS + **COMPLETE CLEAN-OUT**



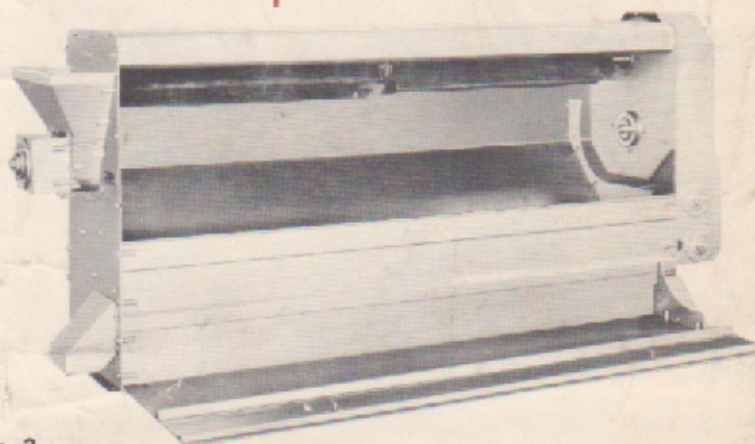
**Fig. 1**

No. 1-VT Carter Precision Grader, front and drive end. Overs of cylinder perforations discharge from spout shown.



**Fig. 2**

Front plate and door removed, in preparation for removal of cylinder. Shown is a grooved-and-slotted cylinder (made in two sections).



**Fig. 3**

At drive end is shown slotted stub-shaft which permits quick removal of shell. This view shows rotating rubber blade perforation cleaner.

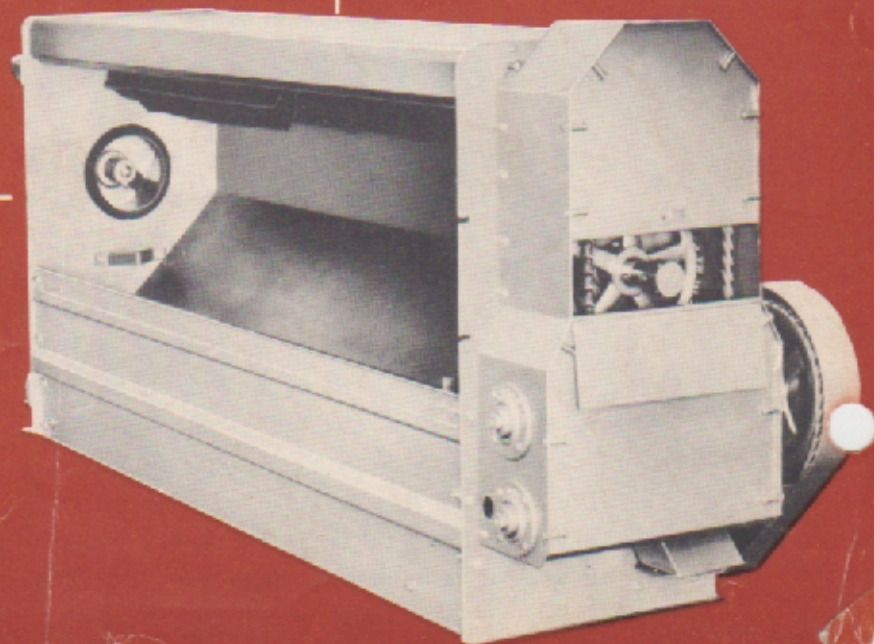
## **SHAFT CARRYING SHELL IS REMOVED BY:**

1. Removing front plate and door. Note wing nut fasteners on the plate, Fig. 1.
2. Opening door of chain housing and loosening set screw in collar on shaft at drive end. (See Fig. 4.)
3. Drawing stub-shaft away from cylinder shaft. (See Fig. 3.)
4. Cylinder assembly is withdrawn from hub at feed end (Fig. 4) and removed from the machine.



**Fig. 4**

Cylinder assembly removed and standing on end, which assures thorough clean-out.





# Flexible

## FLOW

## ARRANGEMENTS

**No. 1-VT Carter Precision Graders** are available for single, two-high, and three-high arrangements. Each unit has its own drive by a  $\frac{1}{4}$  H.P. motor.

Overs of cylinder perforations discharge at the drive end. The conveyor carrying throughs discharges at the feed end.

When multiple units are used in parallel flow (each unit doing an equal part of the separation), the arrangement is shown in Figs. 5 and 6. Fig. 5 is a feed end view; Fig. 6 is a drive end view.

Fig. 7 shows the drive end of the upper unit and feed end of the lower unit. In this arrangement, overs of the cylinder perforations of the upper unit go to the unit below.

The spouting shown at the feed end of both units in Fig. 8 is for feeding throughs from the cylinder perforations of the upper unit to the unit below.

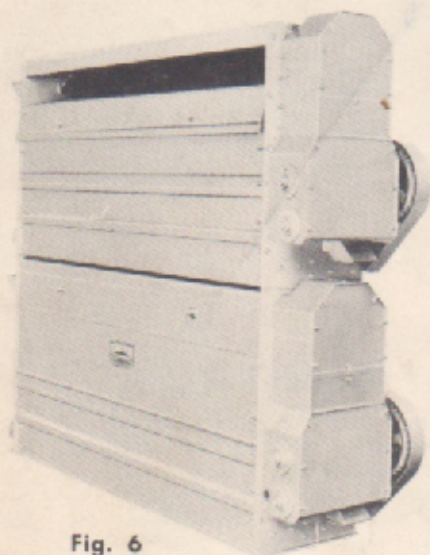


Fig. 6



Fig. 5

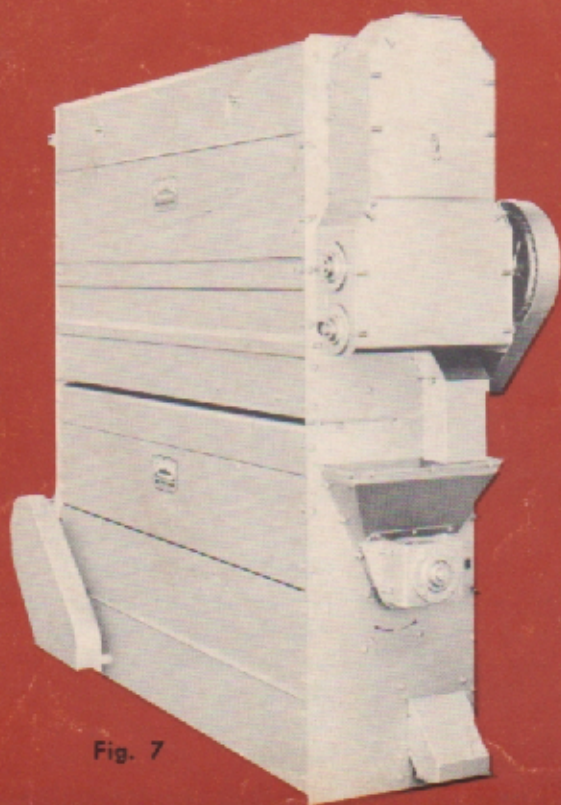


Fig. 7

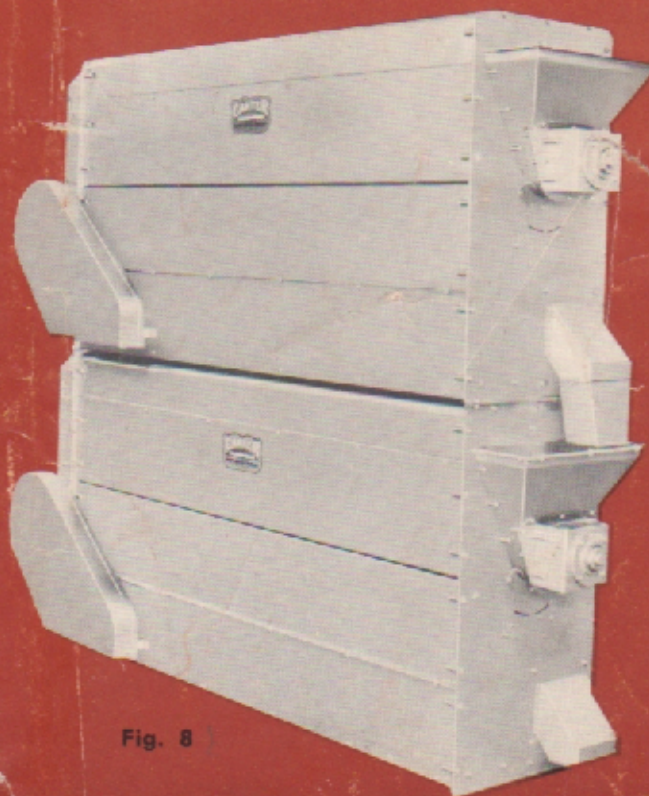
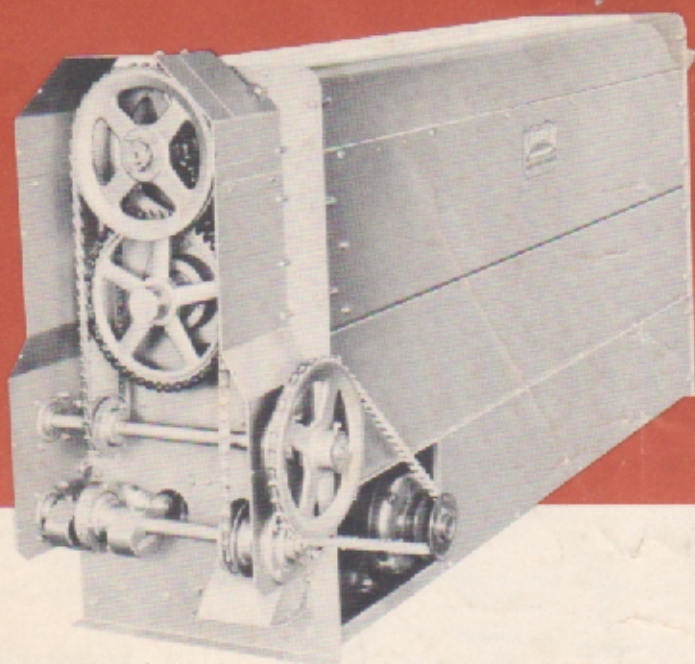


Fig. 8



# CARTER PRECISION GRADER



## DRIVE ARRANGEMENT

This view, with the chain housing removed, shows the drive arrangement of the No. 1-VT. This drive arrangement is used on single units and on each unit of multiple-unit installations. The motor is  $\frac{1}{4}$  H.P., 1725 R.P.M.

The use of individual motor drives on these machines is a distinct advantage when it is necessary to rearrange flow.

## CONSTRUCTION AND SERVICE

As is true of all Hart-Carter products, Carter Precision Graders are noted for their efficiency, mechanical simplicity, and sound construction. They are sturdily built . . . for minimum upkeep cost and maximum life. They are all-metal, use ball bearings extensively. Mechanical excellence is assured by the use of high-quality steel and iron parts, by skillful engineering, and precision workmanship.

Hart-Carter Company maintains a complete service-history record of all machines sold and in operation. This assures you that repair parts will be shipped promptly.

## GUARANTEE OF SATISFACTION

We guarantee these machines for a period of ninety days from date of delivery and agree to supply *without charge* at factory any parts which prove defective in material or workmanship during that period. Replacement cylinder shells and repair parts are available to keep your equipment operating at peak efficiency. Whether for new installations or replacements, Hart-Carter is at your service with men who *know* separating and sizing equipment and methods.

**FREE LABORATORY SERVICE**—Hart-Carter operates its own laboratory for sample testing by Precision Graders and other separating and sizing machines. You are invited to send samples; about two quarts (by volume) usually are needed for a satisfactory test. There is no charge for this service.

# HART-CARTER COMPANY

655 Nineteenth Avenue N.E.

Minneapolis 18, Minnesota

## DIMENSIONS AND DETAILS — MODEL

# No. 1-VT

	WIDTH	LENGTH	HEIGHT	NO. OF MOTORS	H.P.	NET WEIGHT	SHIPPING WEIGHT
Single Unit	21"	6' 9 $\frac{3}{4}$ "	2' 10 $\frac{3}{4}$ "	One	$\frac{1}{4}$ H.P.	480 lbs.	600 lbs.
Two-high	21"	6' 9 $\frac{3}{4}$ "	5' 8 $\frac{1}{4}$ "	Two	$\frac{1}{4}$ H.P. ea.	960 lbs.	1200 lbs.
Three-high	21"	6' 9 $\frac{3}{4}$ "	8' 6"	Three	$\frac{1}{4}$ H.P. ea.	1340 lbs.	1800 lbs.