NEW McCORMICK INTERNATIONAL® Corn Planters

INTERNATIONAL HARVESTER

NO. 450 FOR HILL-DROP, CHECK, AND DRILL PLANTING

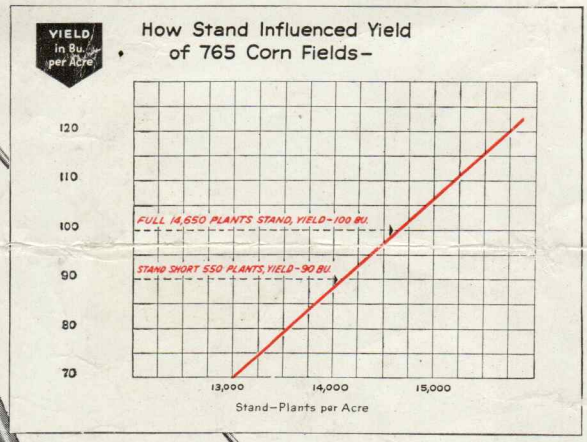
NO. 449 FOR DRILL PLANTING

Now, plant perfect hil

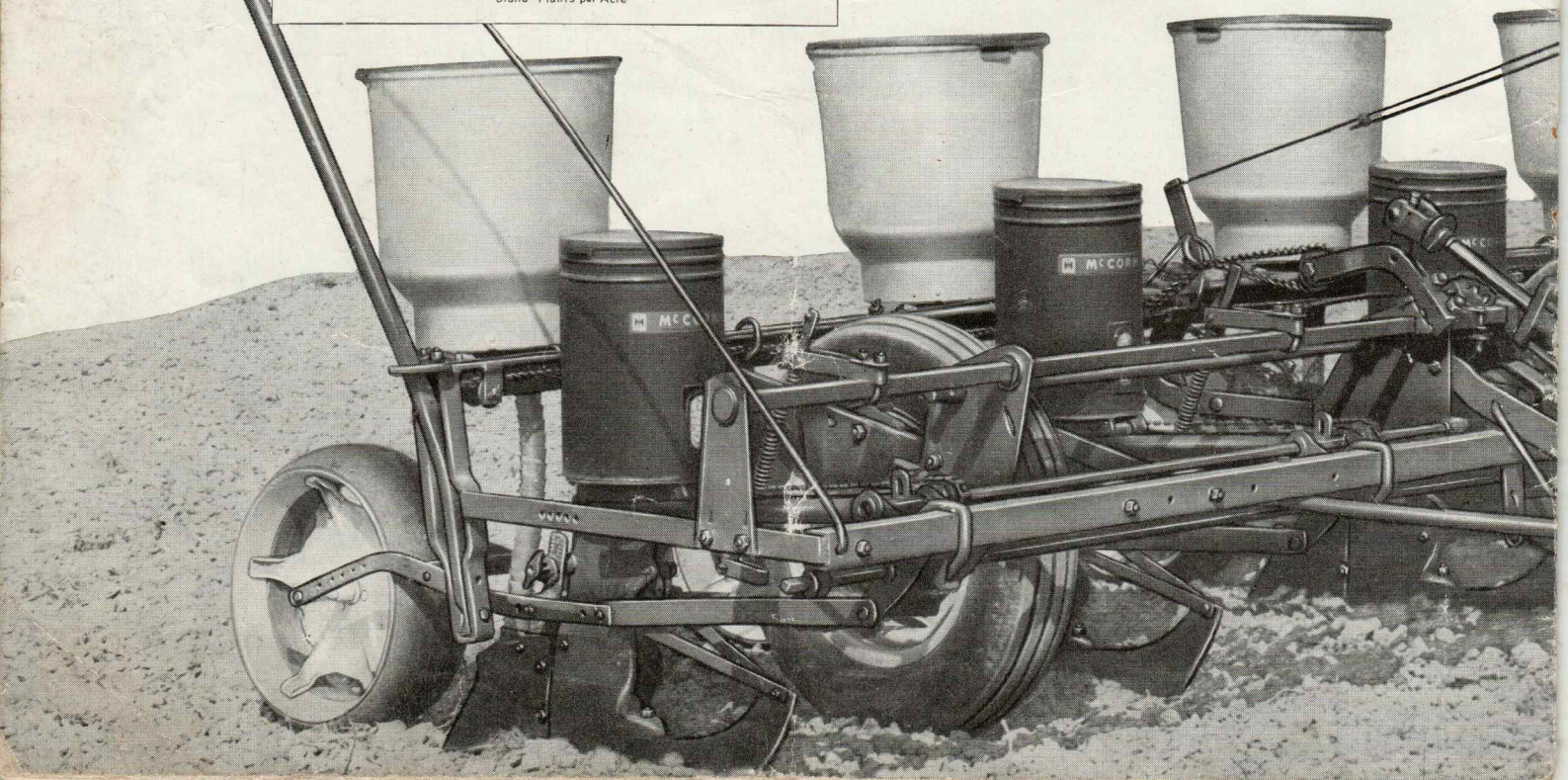
. . . with high-speed, 3-way

New McCormick No. 450 corn planter accurately plants full stands, for top yields, at world's fastest planting speeds!

You take the uncertainty and worry out of high-speed planting, when you put your crops in with the world's fastest precision planter — the new McCormick No. 450. This planter gives you greater planting accuracy at modern tractor field speeds, than other planters give you at low-gear speeds! It eliminates the causes of poor stands that often result from running worn-out or old-fashioned planters too fast — skips and misses, poor selection of planting rates, inaccurate depth control that cuts germination, and strung-out hills that get plowed out when cross cultivated. With this speed and accuracy, you can speed up planting to take advantage of good spring days, yet be sure of planting full stands for top yields. Here are the three vital reasons why . . .



Here's proof that you need full stands for top yields: University of Wisconsin agronomists measured the yields and counted the number of plants in 765 corn fields. They found that top yields were produced only when enough plants grew to maturity to fully use the fertility of the soil. (See graph at the right.) Fields that were short 550 plants per acre at maturity, yielded 10 bushels per acre less than those having a full stand.



ls at 6½ mph

precision!

All illustrations and descriptive matter in this publication apply to International Harvester products sold under either the McCormick, or McCormick International trade name.

1 **You pick your stand . . . plant it exactly.** Twelve check-planting rates and unlimited selection of drill and hill spacings let you pick the stand that's exactly right for your soil's fertility. Positive-filling seed plates count out this stand exactly!

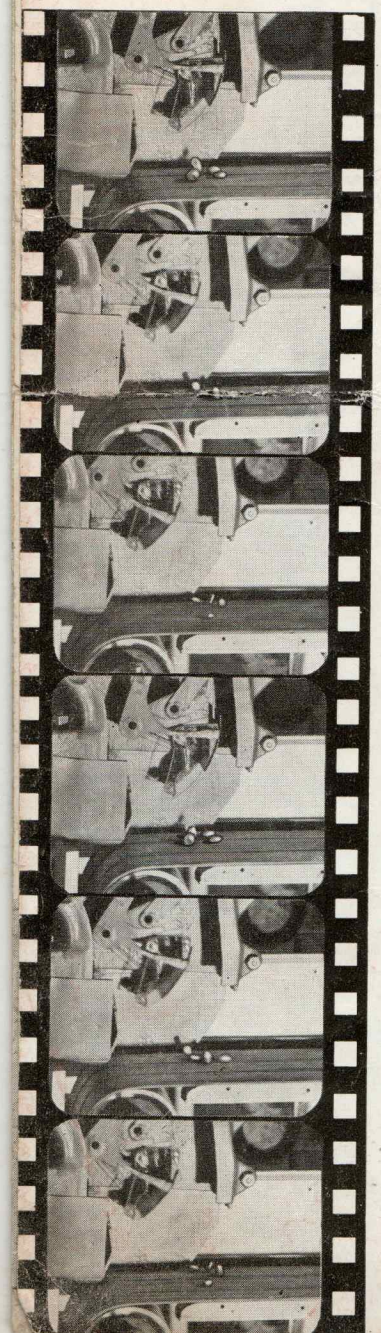
2 **You plant perfectly-placed, well-grouped hills.** Micro-drop action times and delivers seed faster than the eye can see, yet smoothly and precisely. High-speed movies prove that hills go in the ground correctly.

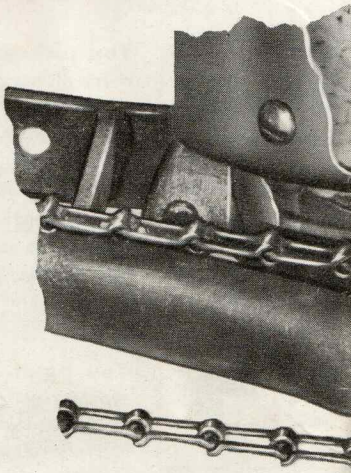
3 **You plant at selected depth — always.** Individual planting units — each with its own gauge wheel — follow the ground exactly. The result — every seed, in every row, in every round goes into the ground at the same depth.

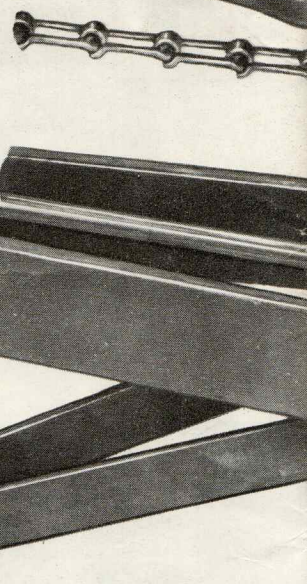
NEW high-speed valves
. . . positive-filling seed-plates deliver

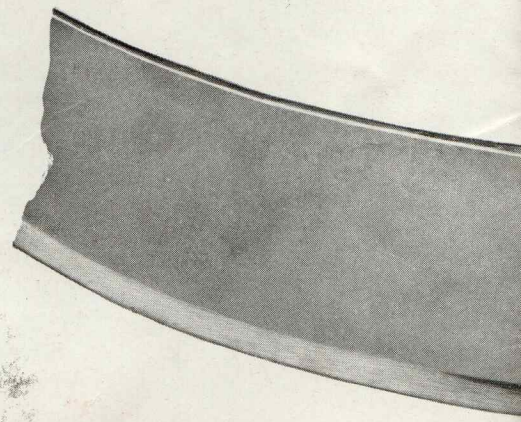
211 hills per minute

without mixing or scattering!







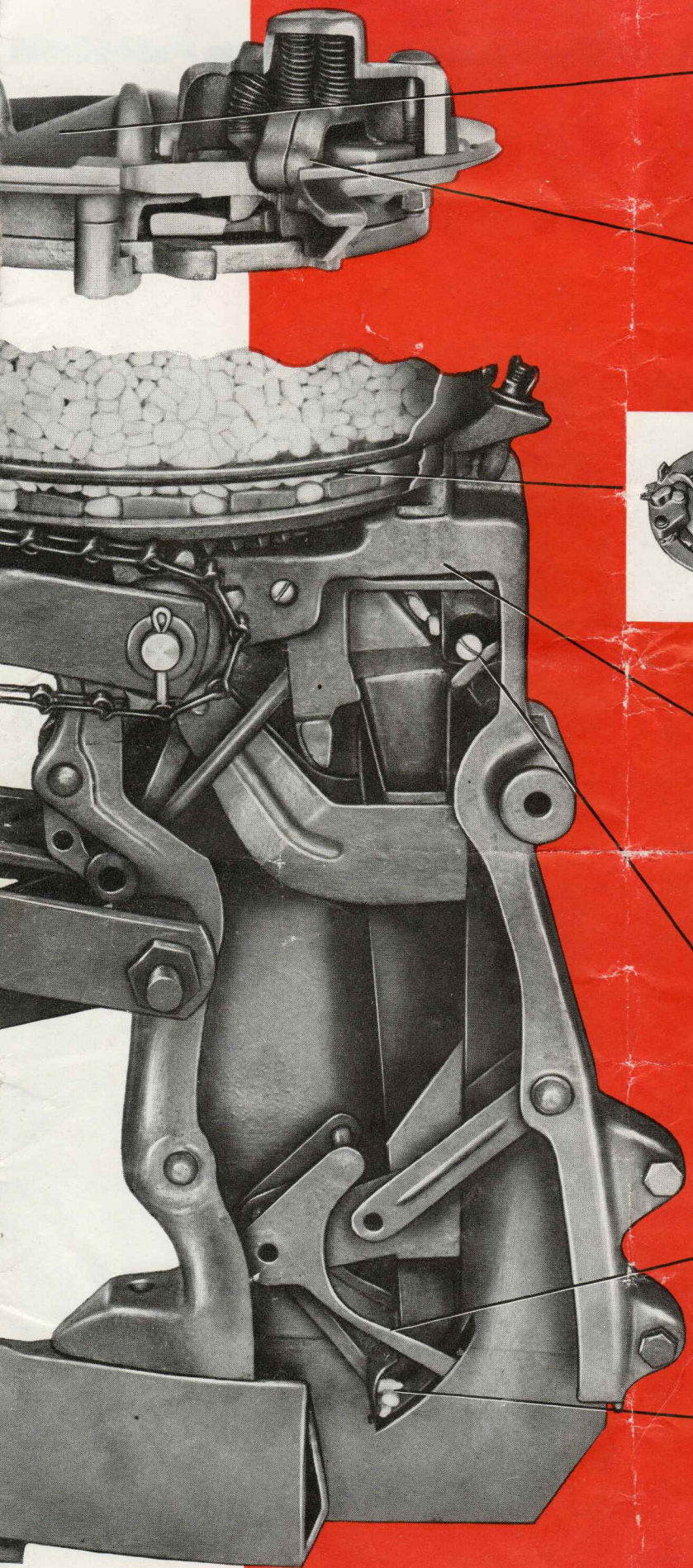


High-speed movies prove the No. 450 planter counts, times, places hills faster and more accurately than any other planter! Seed plates and valves count, time, and place hills faster than the eye can see, when you plant at today's fast tractor field speeds. That's why McCormick engineers used high-speed movies to prove precision action of the seed plates and valves in the new No. 450 planter. These movies (see typical frames at left) showed that the valves and seed plates of this planter would plant up to 211 hills per minute without mixing or stringing out the hills.

Here's what this high-speed precision in the seed plates and valves of the No. 450 planter means in the field. You can plant hills spaced 40 inches apart at a top speed of 6½ miles per hour. You can maintain a five-mile-an-hour speed even when planting hills spaced 26 inches apart. Many other planters must be slowed to low-gear or creeper speeds to plant these close-spaced hills accurately.

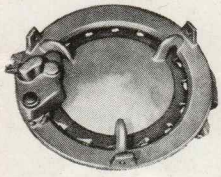
Look over the cutaway drawing at the right, and you'll see the many reasons why you can plant at these fast speeds, yet be sure of perfect hills. It shows how all parts from the hopper bottom to the valves work together to give you unfailing planting accuracy.

Perfect count, tight, clustered hills . . . movie film shows bottom valve ejecting seed on moving belt which simulates forward travel of planter. Perfectly timed seed reaches furrows as soil folds back in, positively preventing bouncing and scattering. (Bouncing seed at left is due to hi-speed ejection on to rubber test belt.)

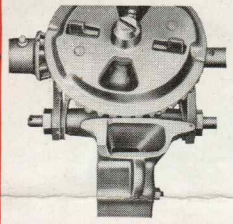


Hi-cone hopper bottom. Seed flows smoothly and positively down the steep, smooth sides of the hopper bottom and into the seed plate cells.

Cut-off and ejector are close-spaced to keep seed from jumping out of the cells before they are ejected into the valve. Coil springs assure positive action, and prevent seed cracking.



13 cells are always exposed to seed (with 16 cell plates), assuring positive filling at top speeds. The single, compact cut-off ejector housing covers only a small part of the seven-inch seed plate.



Trajectory-shaped passages let seed fall freely from plate. Seed is not slowed up by bouncing back and forth against the sides of the passage, and hills are not mixed.

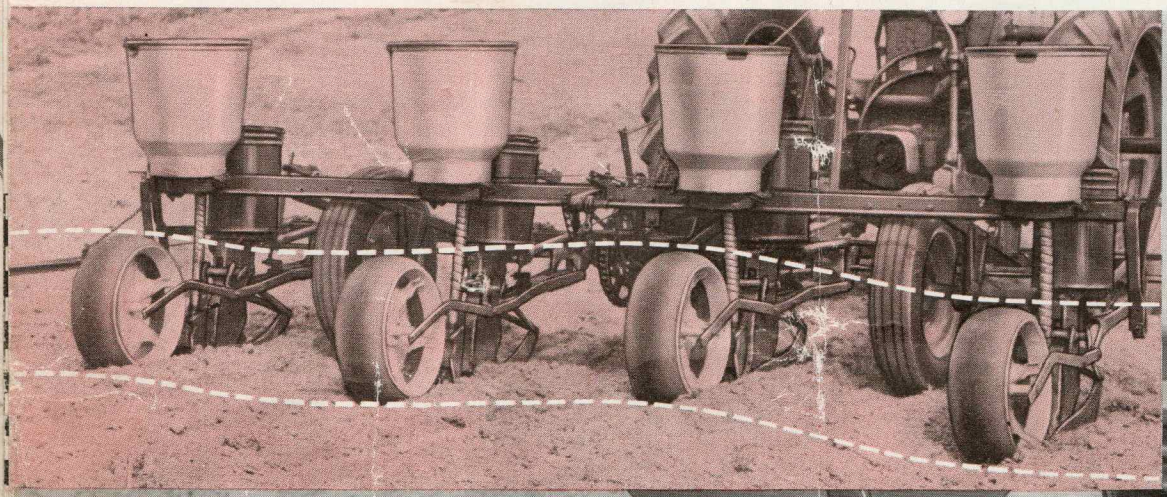
Positive-closing top valve seats against a shock-absorbing spring that prevents flutter. Seed cannot slip through after the valve has closed, to mix hills.

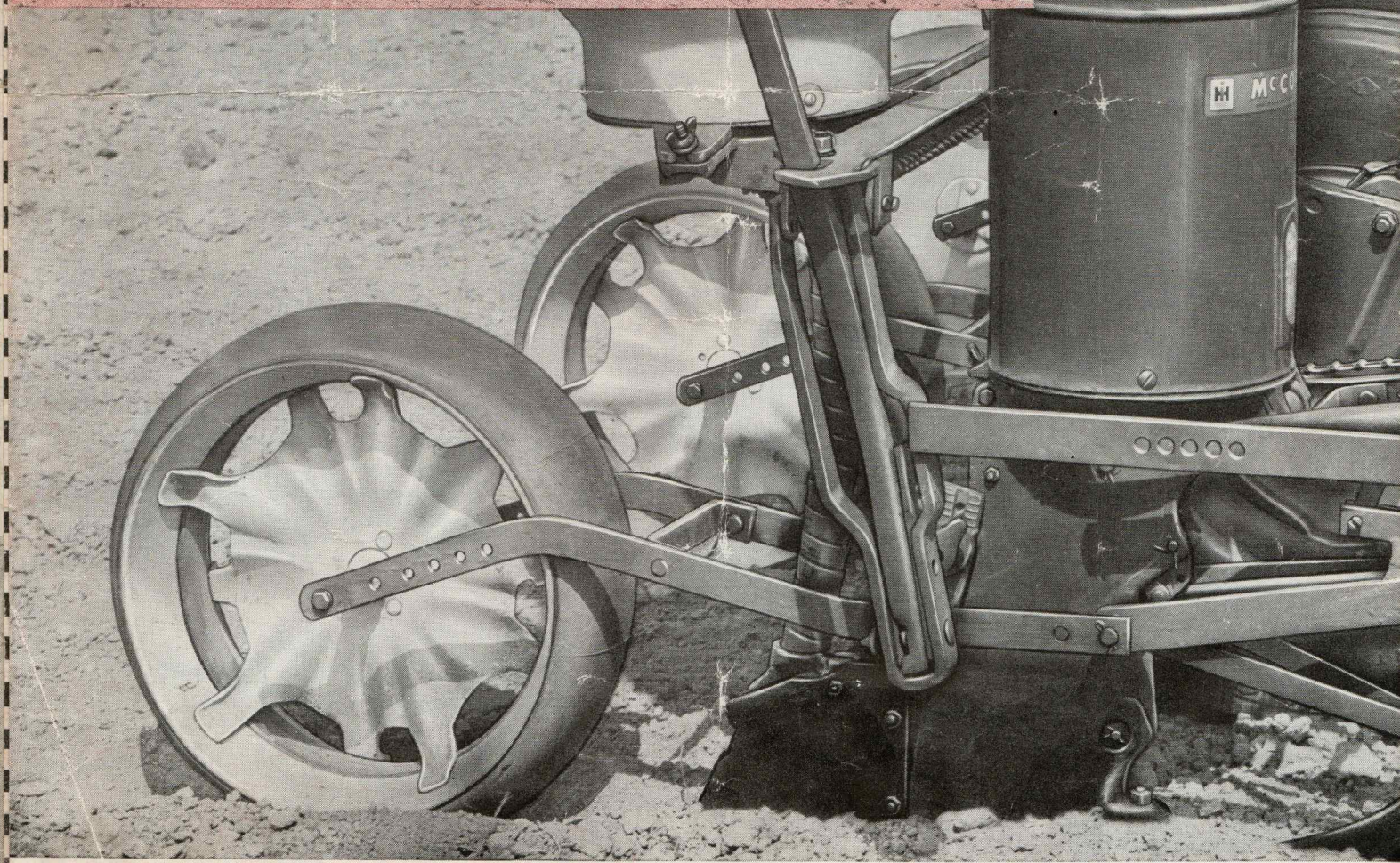
Fast-action pressed-steel valves and seed tubes have no excess weight. As a result they can move precisely at extremely fast speeds.

Seed is propelled into furrow. The seed is tightly grouped in the bottom valve which propels it into the furrow as the soil folds back to cover the hill.

NEW independent knee-action

hold selected planti

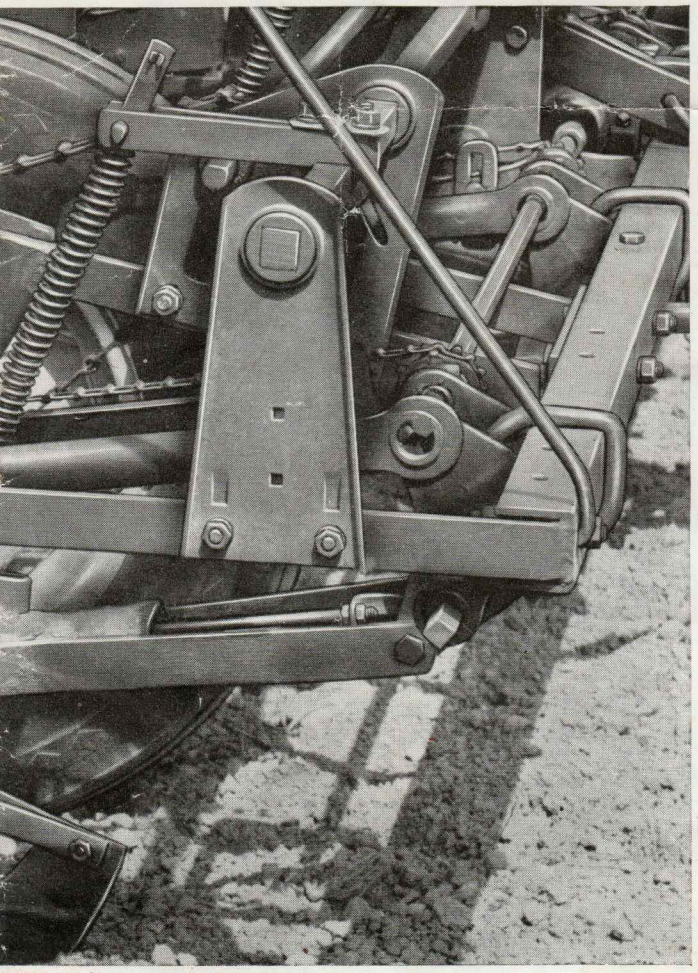




ground units follow the surface . . .

ng depth at fastest planting speeds

The four-row units of the 450 planter are carried on individual knee-action mountings. The runners remain at the set depth as the units rise to plant ridges, or move down to plant hollows. The planting depth of each unit is individually controlled by the unit's own press wheel, which also acts as a gauge wheel. The press wheel mountings can be raised and lowered to change planting depth by simply loosening a hand screw. In soils which are difficult to penetrate, accurate planting depth is maintained by pressure springs which permit the entire weight of the hefty frame to be used to hold the runners in the ground.



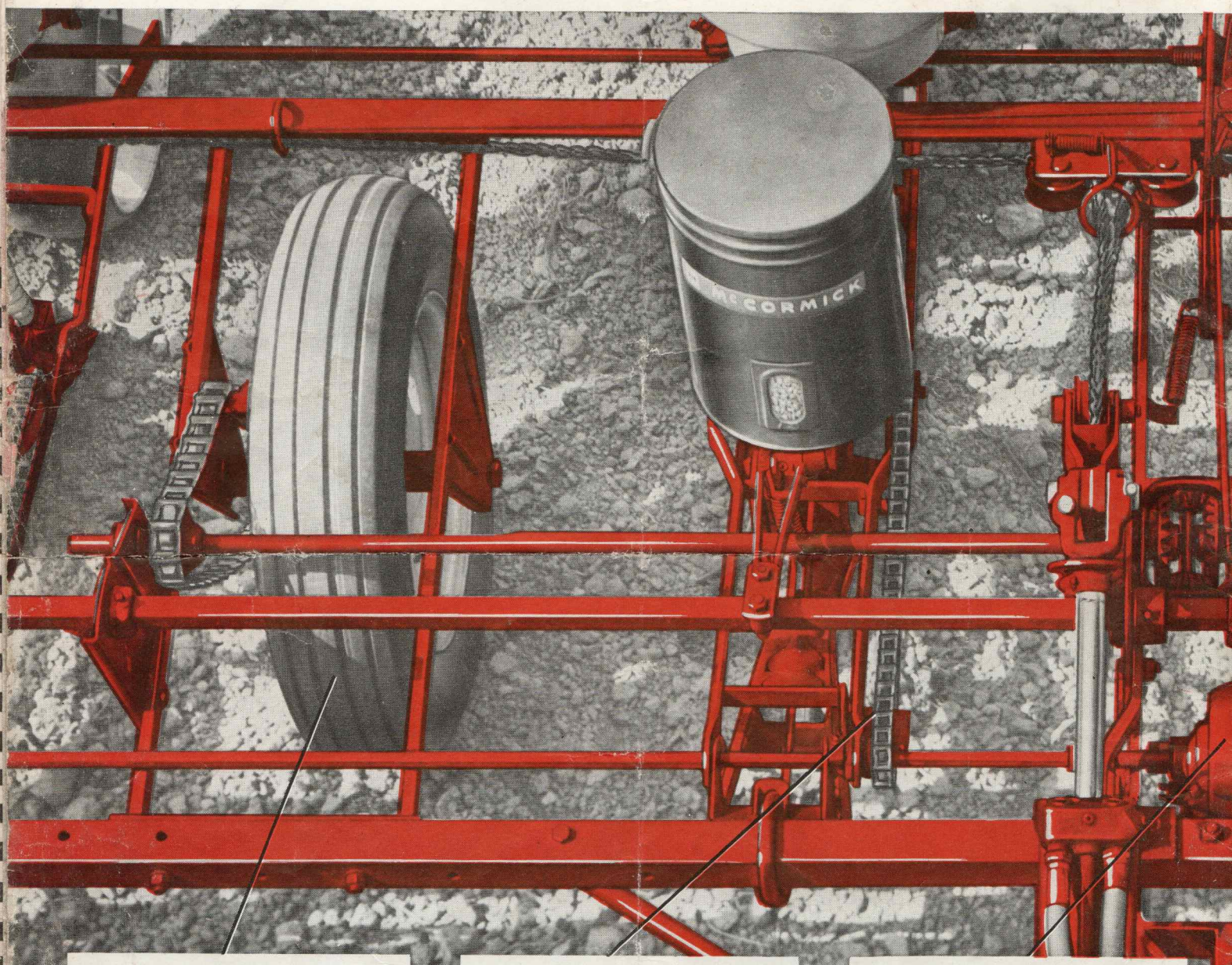
Row units lift instantly for fast transport . . . easy maneuvering

You back into the shed and turn around easily in tight corners, with a new McCormick corn planter. It handles just as easily as a two-wheel trailer.

Just trip the quick-acting lift and the individual row units are picked up for fast, easy turns.

NEW simple drive . . . NEW

seasons of high-spee



POSITIVE, NON-SLIP SEED-PLATE DRIVE

The two drive wheels, linked by a differential, provide plenty of traction to lift the units and drive seed plates smoothly.

EASY-TO-TIGHTEN CHAIN DRIVE

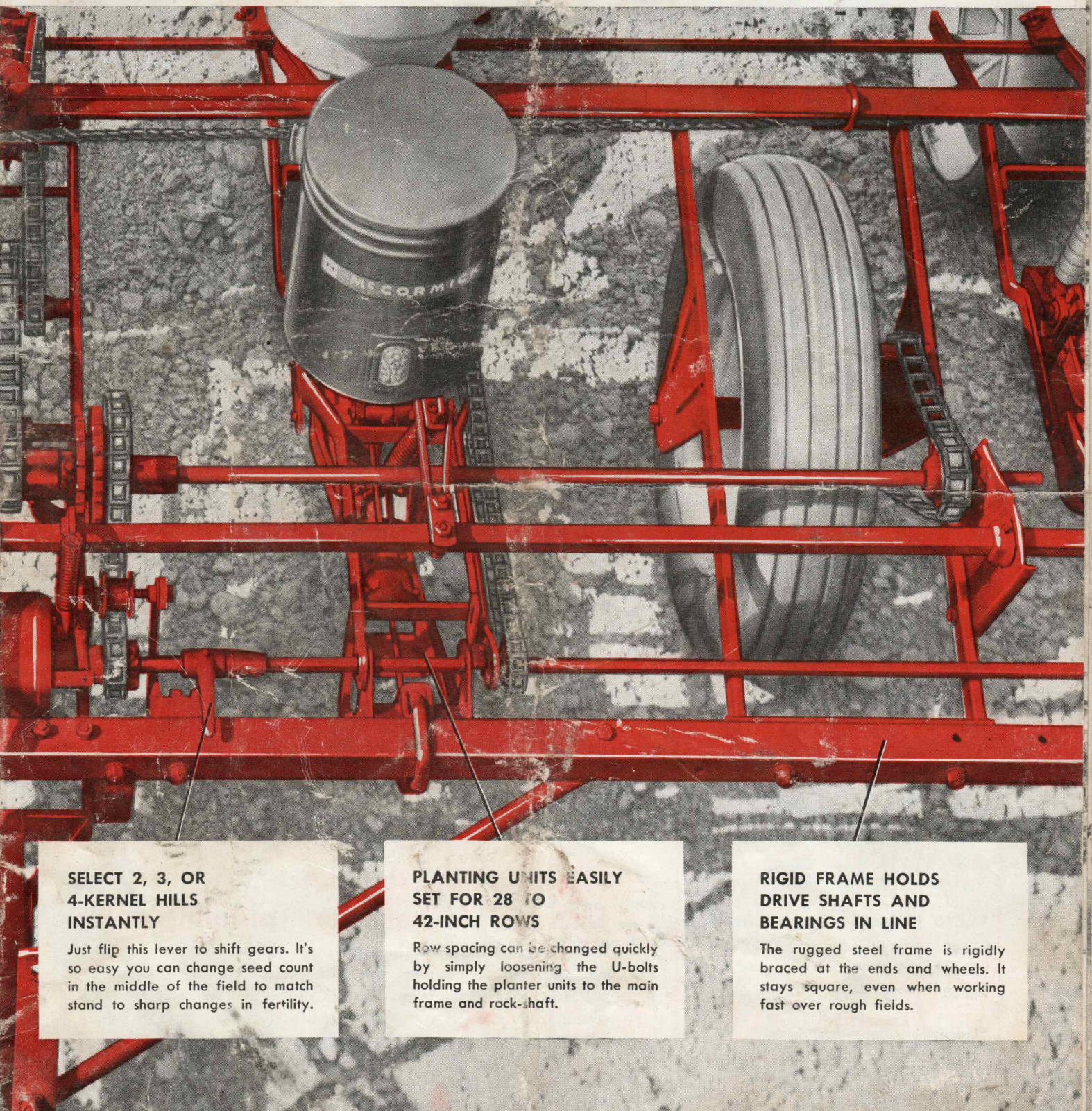
Keeps seed plates turning smoothly. There are no universal joints, gears or other hard-to-replace parts to wear and cause seed plates to turn unevenly.

RUGGED CLUTCH, PRECISION GEARS RUN IN OIL

Both the clutch and the gears are fully enclosed. Dirt is positively kept out, lubrication assured.

rugged frame give you

d, precision planting



SELECT 2, 3, OR 4-KERNEL HILLS INSTANTLY

Just flip this lever to shift gears. It's so easy you can change seed count in the middle of the field to match stand to sharp changes in fertility.

PLANTING UNITS EASILY SET FOR 28 TO 42-INCH ROWS

Row spacing can be changed quickly by simply loosening the U-bolts holding the planter units to the main frame and rock-shaft.

RIGID FRAME HOLDS DRIVE SHAFTS AND BEARINGS IN LINE

The rugged steel frame is rigidly braced at the ends and wheels. It stays square, even when working fast over rough fields.

NEW exclusive seed plate drive gives you 12 planting rates that let you

check-plant to match soil fertility

The No. 450 Planter Gives You 12 Check-Planting Rates

PLANTS PER ACRE	Per Cent of Hills Having 2, 3, 4, or 5 kernels	
7,840	**100%–2's (clutch drive)**	
7,950*	98% — 2's	2% — 3's
9,750*	53% — 2's	47% — 3's
10,590*	29% — 2's	71% — 3's
11,760	**100%–3's (clutch drive)**	
12,000*	97% — 3's	3% — 4's
12,900*	71% — 3's	29% — 4's
14,610*	27% — 3's	73% — 4's
15,680	**100%–4's (clutch drive)**	
15,900*	94% — 4's	6% — 5's
18,000*	32% — 4's	68% — 5's
19,350*	27% — 4's	73% — 5's

* in-between rates without clutch.

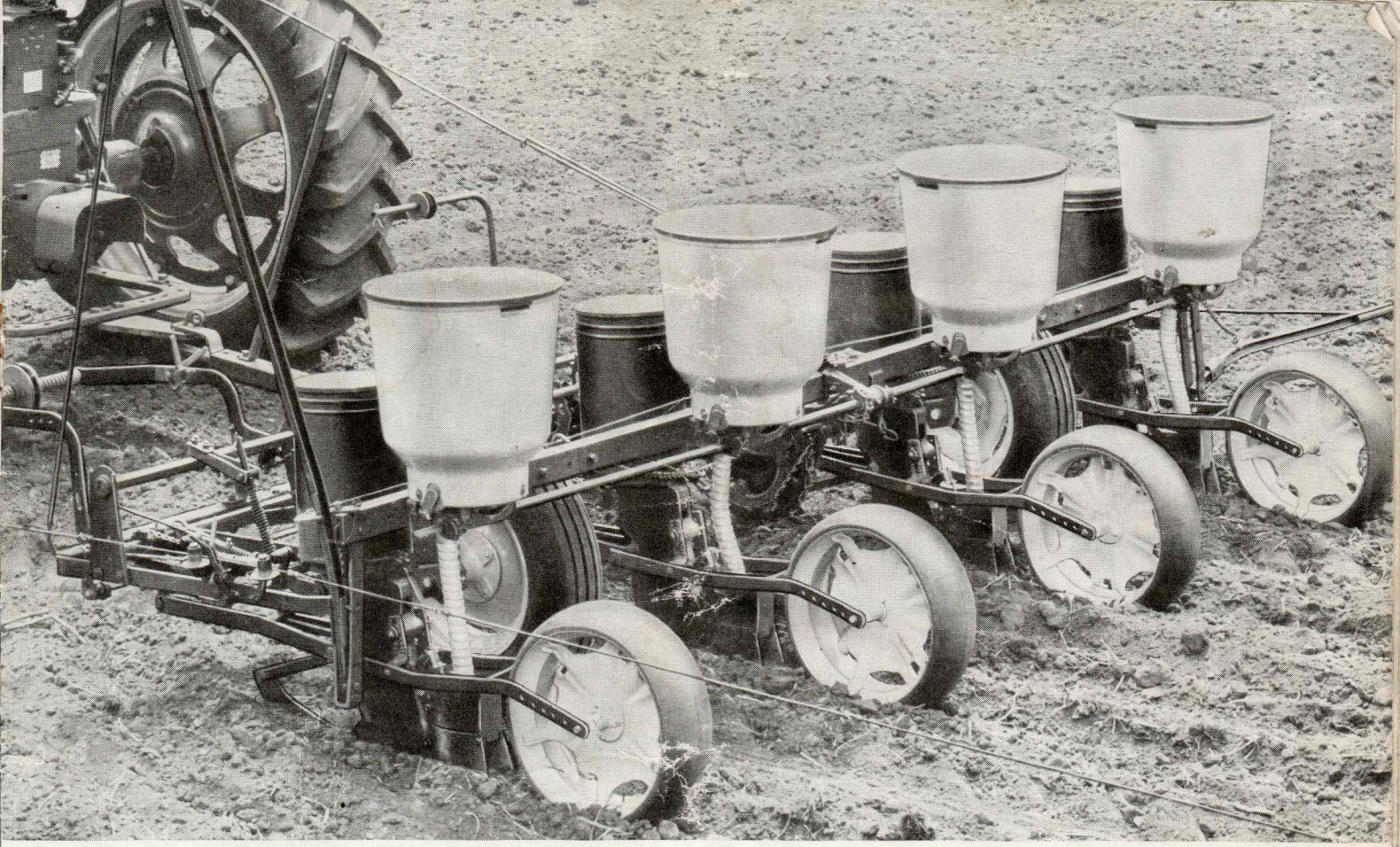
The 12 planting rates let you check-plant stands that match your soil's fertility exactly. You can eliminate over and under planting that frequently cuts yields of check-planted crops, and which can't be prevented with old-fashioned planters having only 3 check-planting rates. To get the 12 planting rates, the McCormick No. 450 planter has an exclusive seed plate drive which can be switched between clutch and clutchless operation instantly.

Plant with the clutch . . . for 2, 3, or 4-kernel hills

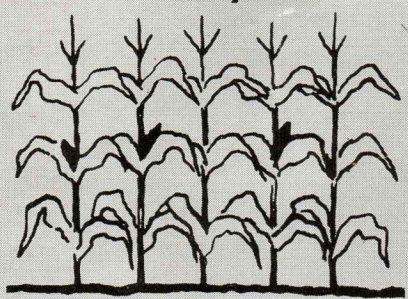
The clutch causes the seed plates to run until the correct number of kernels are counted out, then stop until the top valve opens. This positively assures exact hill counts by preventing mixing at the seed plate.

Plant without the clutch . . . for nine "in-between" planting rates

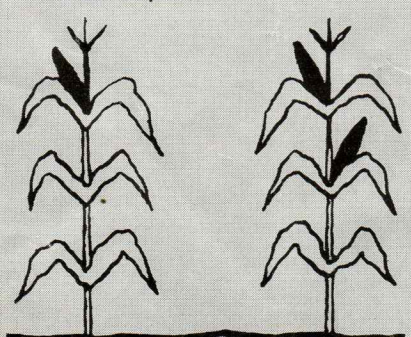
If two, three or four-kernel hills don't give you a perfect stand for your soil, then you can use the "in-between" rates. You do this by simply switching over to clutchless drive. This permits seed plates to run continuously and lets you obtain the desired planting rate by simply selecting the proper sprocket and gear combination.



Watch for these signs of improper planting rates which cut yields:



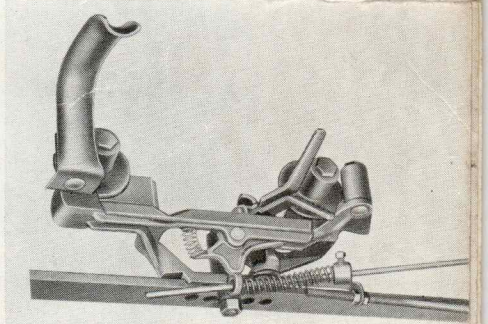
Overplanting produces small weak stalks which bear nubbins or underdeveloped ears.



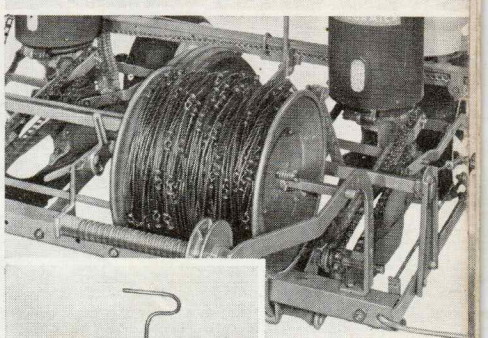
Underplanting results in large, tough stalks which frequently have few, but large ears.

Accurate cross-checks are easy-to-make

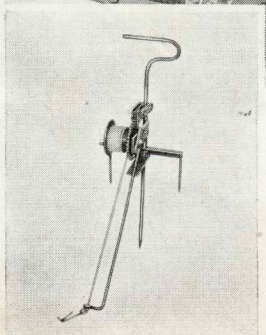
Rugged, accurate check-head has long-lasting hardened steel rollers and check fork. It automatically kicks out the wire when the planter is raised. The check-head can be easily adjusted to any of five positions on the frame to get a perfect cross check.



Level-wind, power reel keeps wire evenly distributed when winding. It automatically keeps tension on the wire when laying out, and prevents excessive tension when picking up.



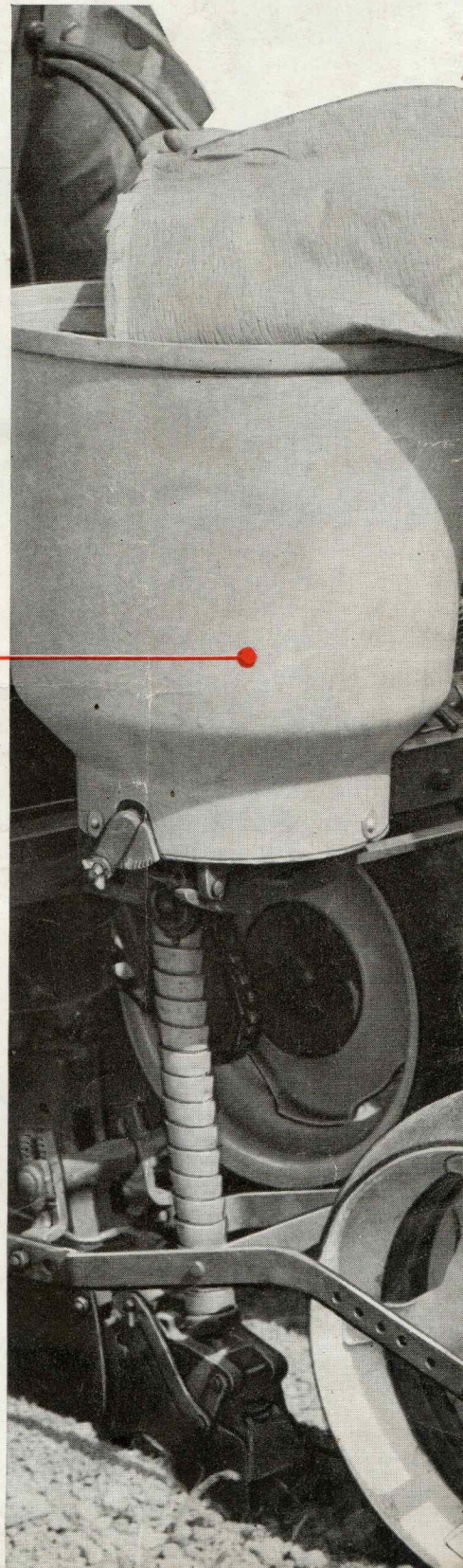
Ratchet-drum payout stakes assure constant tension even when nearing row's end. The wire is pulled to the proper tension by simply winding the drum, which is equipped with ratchet and brake.



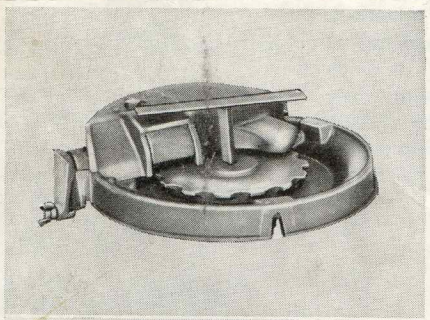
NEW McCormick fertilizer units

- **New, 115-pound plastic hoppers**
- **New, accurate, wide-range rotary gate**
- **New, disk applicator, places fertilizer to side and below seed**

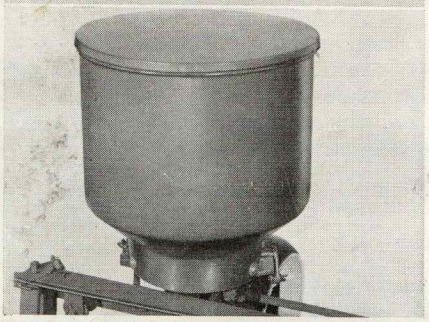
Fertilizer application at planting time is convenient and precise, with the new McCormick fertilizer unit for the No. 450 planter. Big-capacity hoppers let you cover more ground without refills, at today's popular heavy fertilizer application rates. Easy-to-clean rotary metering gates assure positive, precise control of selected application rate. A choice of split-boot and single-disk applicators let you place fertilizer in the way you prefer.



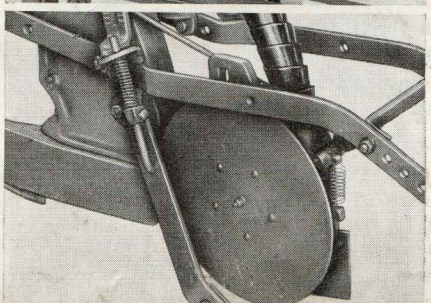
The new plastic hopper is mounted low for easy filling. Its 115-pound capacity makes it ideal for heavy applications and large fields. Glass-reinforced plastic has exceptional strength — won't dent, rust, or corrode — and, you can always see the fertilizer level.



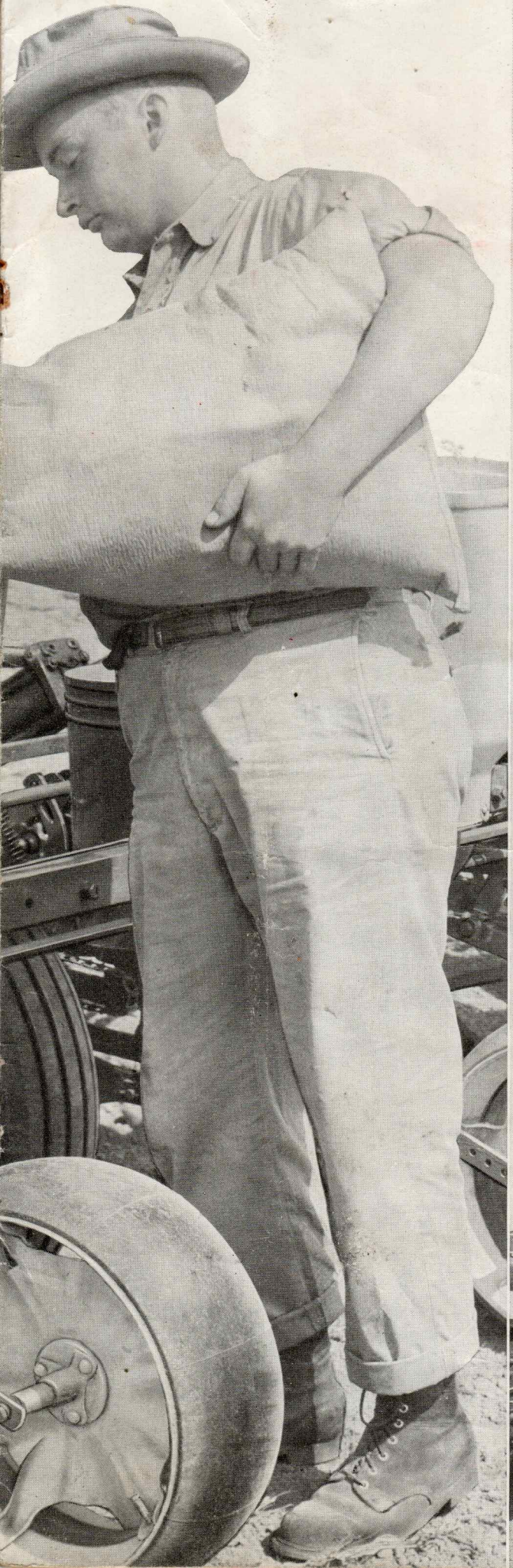
New rotary gate accurately meters out 25 to 1,600 pounds per acre. It simply rolls up or down from the surface of the star-feed wheel to increase or decrease the amount of fertilizer applied. The rotary gate is connected to a handy arm on the outside of the hopper, which lets you select rate. A T-type agitator assures a constant flow of fertilizer to the star wheel and gate. All parts are easy-to-reach for fast, thorough cleaning.



The regularly supplied steel hopper holds 110 pounds . . . provides plenty of capacity for average applications in medium sized fields. It is interchangeable with the plastic hopper.



Choice of split-boot or single-disk opener. The split boot (right) deposits fertilizer on both sides of the row. The single-disk opener (left) deposits fertilizer on one side and below the seed level. It gives accurate placement and trouble-free application in trashy seed beds.

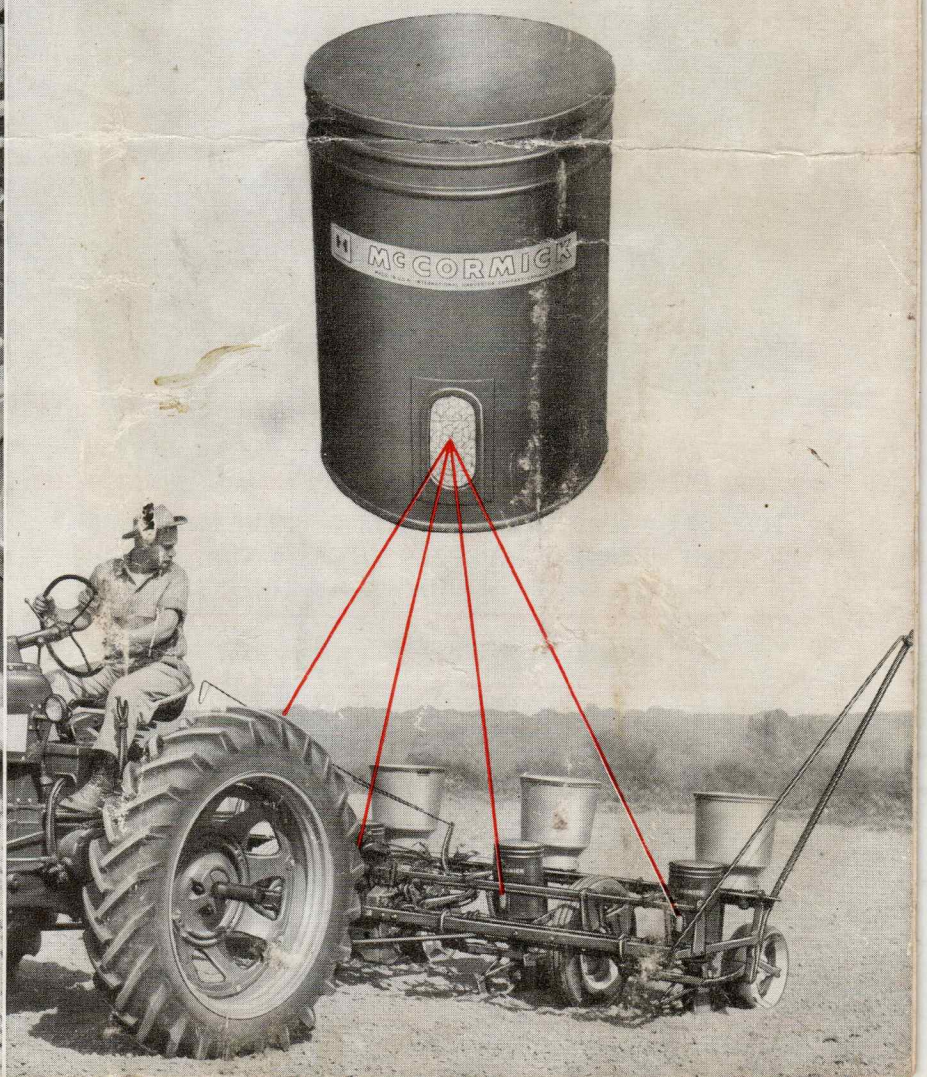


NEW
half-bushel window hoppers

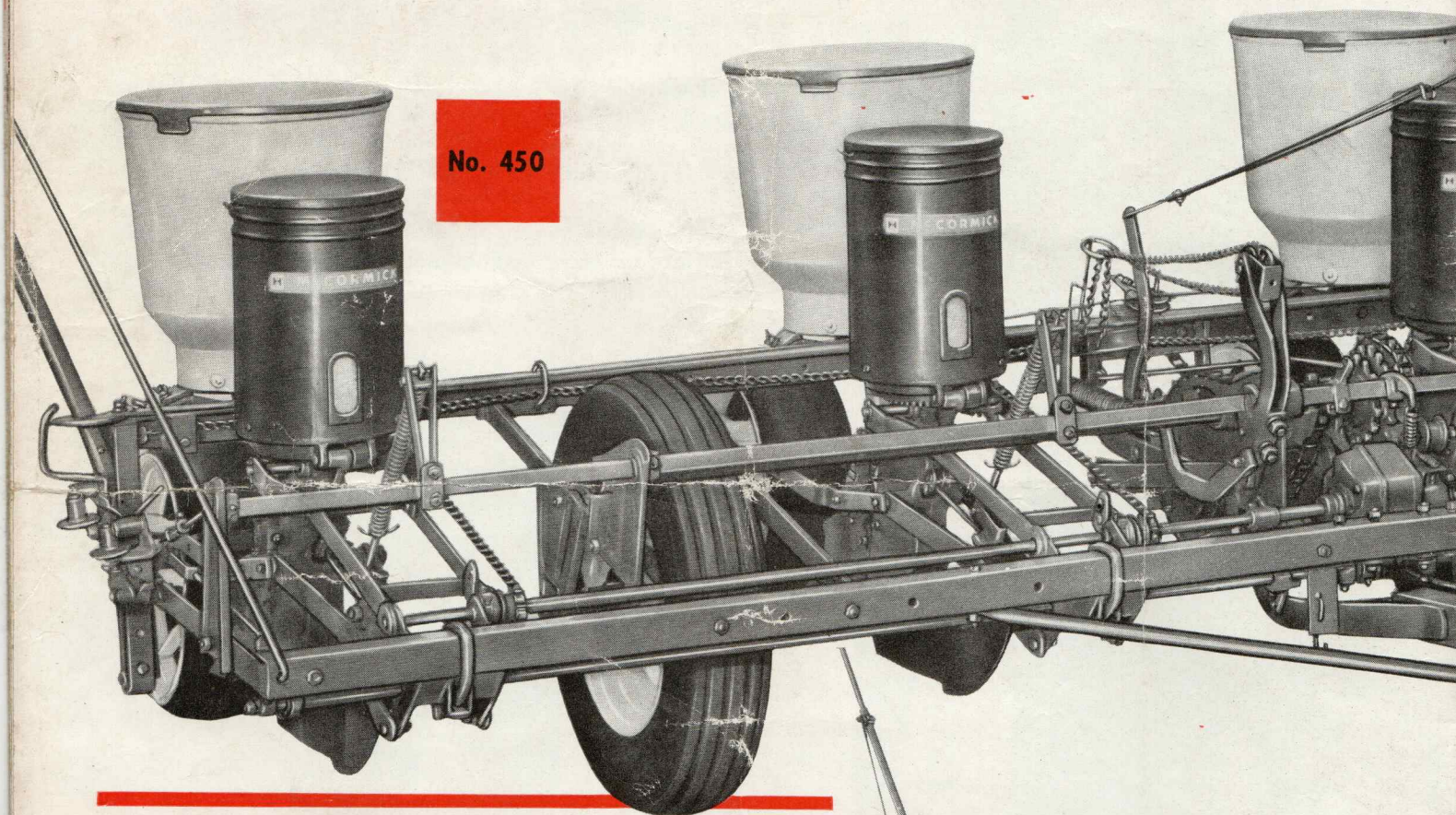
- **Eliminate run-outs**
- **Reduce refill stops**

You put a heaping half-bushel of seed in each hopper of the new McCormick 450 — and go twice as far before refilling! At the end of a row, you just glance at the window in the front of hoppers and you know instantly whether you have enough seed for another round.

The new window hoppers are made of heavy-gauge steel, spray painted for protection. Tight-fitting lids keep out dirt and rain. The window is made of clear plastic and is tightly sealed to the hopper side.



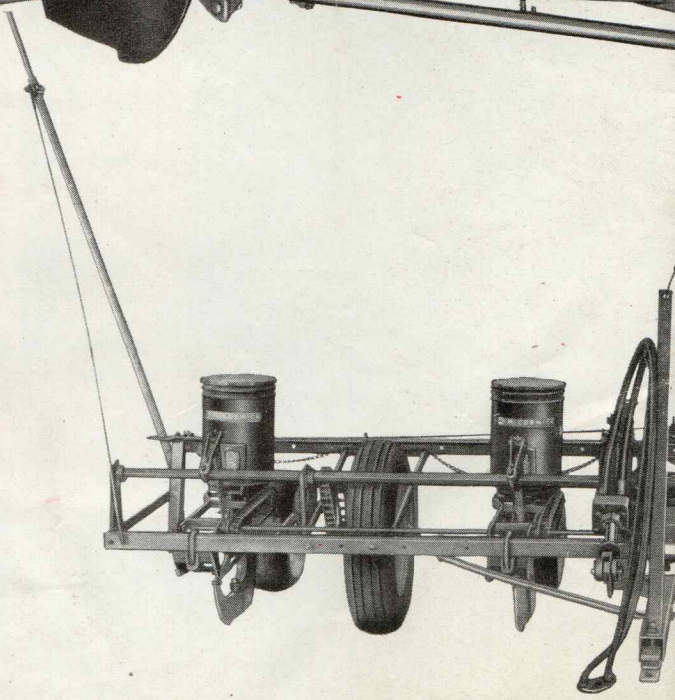
plant all row crops fast a
McCormick No. 450 . . . or i



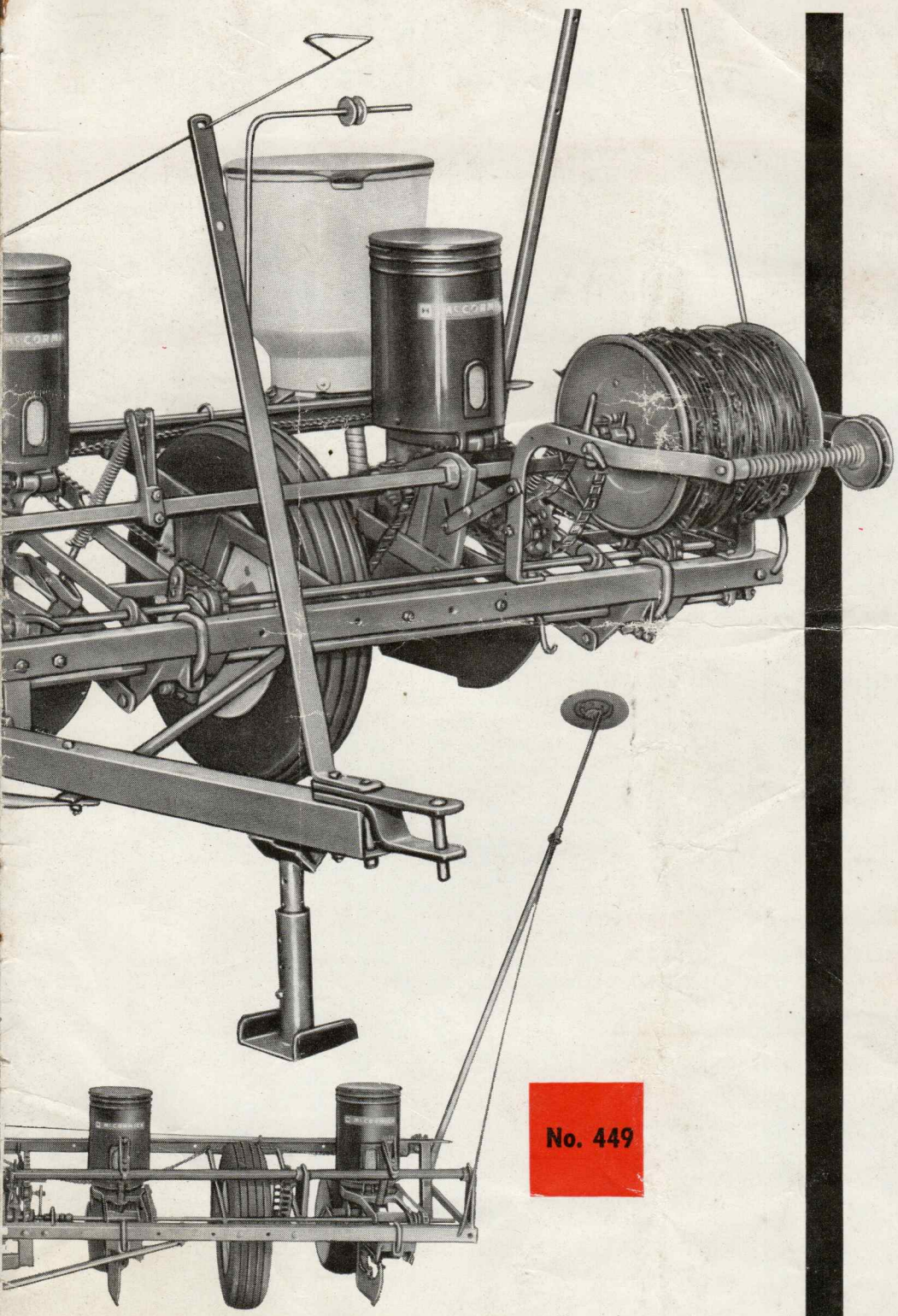
HILL-DROP AND DRILLING RATE OF NEW McCORMICK CORN PLANTERS EQUIPPED WITH 16-CELL PLATES

(8 to 80-cell plates also available)

No. 450 PLANTER		No. 449 PLANTER	
Hill spacings, inches		Seed spacings, inches	
2 Kernels per hill	9¾	5	10
	12	6	10¾
	13	6½	12¼
	14¾	7½	13
	16¼	8	14¾
2, 3, or 4 kernels per hill	19¾	8¾	16¼
	24¼	9¾	19¾
	26¼		
	29½		
	32½		
	39¼		
	10¾ to 72½ with special sprocket	2¼ to 36¾ with special sprocket	



...urately with the new ...ts companion, the No. 449



For Hill-Drop, Check, and Drill Planting . . .

New McCORMICK

No. 450

This planter will plant practically any crop you grow — corn, beans, acid delinted cotton, and many specialty crops. Its wide range of planting rates, eight row-spacings ranging from 28 to 42 inches, unlimited selection of seed plates, and many combinations of ground equipment enable you to plant exactly the way you want for full stands and big yields.

The No. 450 is available either with or without check-planting equipment. With check-planting equipment, you can plant any way you choose — check, hill-drop, or drill.

If you hill-drop and drill your crops, you make considerable savings by getting the No. 450 planter without check-planting equipment.

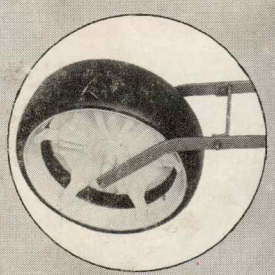
For Drilling . . .

New McCORMICK

No. 449

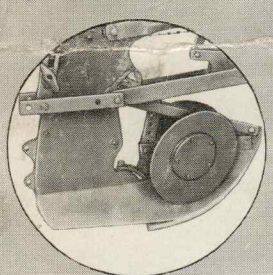
You can drill corn, beans, and dozens of other crops with this economical planter which has a straight-through boot. Rows can be spaced 28 to 42 inches apart. Drill spacings of from 5 to 19¾ inches are obtainable with 16-cell plates. A wider range of planting rates can be obtained with plates having from 8 to 40 cells, or through use of a special speed change sprocket.

fast a

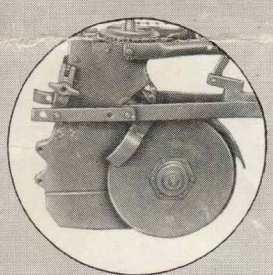


Zero-pressure tires prevent damp, sticky soil from balling up on the press wheel by flexing as they roll over the ground.

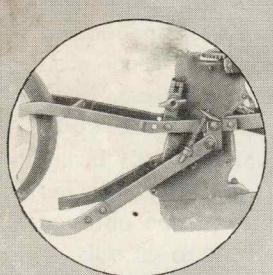
Big selection of ground equipment



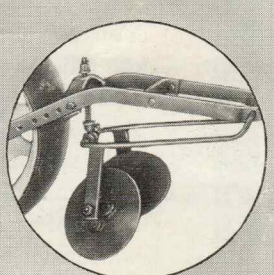
Disk furrowers make a furrow ahead of the runner so that seed is planted in damp, weed-free soil. Nine and eleven-inch disk sizes.



Double-disk openers penetrate hard ground and trash, to give you accurate seed placement and trouble-free planting in these conditions.



Blade coverers sweep the soil over the seed to assure positive, uniform covering when planting very shallow.



Disk coverers assure positive covering when soil is too damp or sticky to fall into the furrow naturally.

SEED PLATES AND ATTACHMENTS

for accurate, trouble-free planting of any seed . . . in any soil

136 different seed plates are available to let you select the exactly-right cell size and count for your crops. Soybean plates are available up to 40 cells to give you any planting rate you need. Corn plates with 8, 12, 16, or 24 cells can be obtained in edge, flat, or hill-drop types.

Markers are available in disk, as well as shoe types. A special short marker attachment is available for planting 28-inch rows. Markers lift and switch sides automatically when the planter is lifted. An attachment is available to permit the markers to lift without switching sides. It is used whenever the planter must cross unplanted areas, such as grassed waterways, in the middle of the field.

Hydraulic or wheel lift can be supplied. The hydraulic lift consists of brackets for mounting standard eight-inch Remote-Control cylinder.

Ground equipment is available for all soil conditions and planting practices. It includes runner or double-disk openers, disk furrowing units, blade and disk coverers, steel or zero-pressure press wheels, and seed firming wheel is available for 449 drill planter.

Specifications subject to change without notice.

INTERNATIONAL HARVESTER EXPORT COMPANY
180 N. MICHIGAN AVE. CHICAGO 1, ILL., U. S. A.

E-46-G. 2-12. PRINTED IN UNITED STATES OF AMERICA