

AGRICULTURE

Rust Brothers Change Original Plan to Lease Cotton-Pickers

THE RUST brothers, idealistic southerners who are almost ready to begin manufacture of their widely-heralded cotton-picker, have dropped their original plan to lease the machines and will now sell them outright.

Although no definite information could be secured as to the reason underlying the change in plans in connection with the cotton-picker, which promises to create an economic revolution if and when introduced into the South, it is believed that one of two factors or both may have induced the brothers to drop their intention of limiting its use.

Two rival cotton-pickers are being developed, one by the Berry-Gamble-Hanauer interests and the other by the International Harvester Company. With two competing pickers on the market, no leasing scheme would be workable.

Although larger profits can be made in the long run in many fields by leasing machinery rather than selling it outright, capital necessary for expansion in the early days of manufacture can be most quickly secured by immediate sale.

Unusual interest has been attached to the development of a successful cotton-picker, because its widespread use would directly result in profound disturbances to the labor market throughout the South. Cotton-picking is virtually en-

tirely a hand operation employing hundreds of thousands of men and women for forty days a year. Even though use of the machine may not mean permanent unemployment for the farmhands and sharecroppers, it will mean a temporary displacement of uncomfortable dimensions.

Realizing this, the Rust brothers, John D. and Mack D., at first proposed to limit its use in the United States so as to minimize its effects. They also turned the patents on their device over to the Rust Foundation, a non-profit corporation which will receive the lion's share of profits and will devote them toward educational and cooperative development purposes. That part of the plan, they declare, has not been changed.

Patent No. 2,101,100, covering additional features of their famous cotton-picker, has been awarded the Rust Brothers.

Improvements in the machine to enable the wheels on which the machine runs to supply power for turning the cotton-picking spindles are covered by the patent.

More flexible controls to enable the operator to follow more closely the contour of the bushes are also among the refinements featured in the patent.

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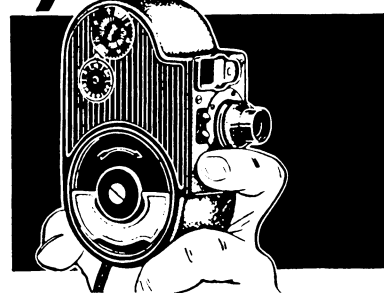
phorus fertilizer to replenish his soil so that crops will grow. In war—in the air, on the ground or on the oceans—phosphorus comes into its own as the creator of dense smoke screens which shield a military force from its enemies. Deadly poisons—used commercially to exterminate rats—contain phosphorus.

For years the phosphorus in animal bones was the principal source of the strange element. But gradually it was found that by heat-treatment the phosphorus in certain rocks could be removed as a vapor and condensed under water to yield the waxy-colored element.

The newer way, and the method for which the Monsanto Chemical Company received the current award, is to obtain

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CHEMISTRY

Combustible Phosphorus Made On Large Scale by New Method

PHOSPHORUS, the chemical element which bursts into flame when exposed to air, is now being produced, and shipped, in tank car lots to open up a new field of chemical industry.

This achievement is being hailed as one of the outstanding chemical industrial developments of the year. It was recognized by the presentation of the Chemical and Metallurgical Engineering award to the Monsanto Chemical Company for this development.

Elemental phosphorus has long interested scientists. Its spontaneous burning is fascinating as well as dangerous. Be-

cause it ignites easily and glows in the dark, the ancient alchemists named the element phosphorus mirabilis—"miraculous bearer of light."

In life and death, peace and war, industry and agriculture, phosphorus is an element interwoven with modern civilization. When you eat cakes or other bakery products made with baking powder, the action of phosphorus is entering your existence. When you strike a match the sparks and flame come from the phosphorus present. There is phosphorus in your bones and those of any animal. And the farmer requires phos-