

## TAILOR MADE ATTACHMENTS NAIL WEEDS CULTIVATOR SHOVELS, SWEEPS CAN'T GET

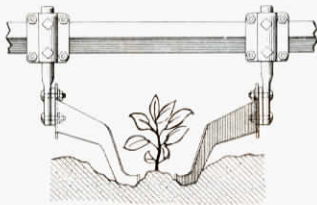
# Perfect Weed Control Without Chemicals?

Here's a "behind the barn" experiment you may want to try this year — especially if you've been looking for a way to get virtually perfect weed control in corn, soybeans or other row crops without using any chemical weed killers.

The idea: Equip your row crop cultivator with a set of finger and spider-like attachments invented and manufactured by a California innovator who makes his living as a custom crop cultivator.

"I honestly believe that any farmer who owns a row crop cultivator will be able to get close to 100% weed control with these proven attachments," Paul Bezzerides, of Orosi, told FARM SHOW. "Our experience with them has been mostly with vegetable crops. However, I see no reason why they won't do the same job for all row crops — whether corn, cotton, soybeans, sugar beets or whatever. We're suggesting that you equip one or two rows of your cultivator with the attachments to see what they will do. If they work for you like they work for us, you should be able to get practically perfect weed control without using any chemical weed killers whatsoever."

**Spring Hoe Weeder:** It consists of two right and two left spring steel fingers or blades, and two mounting brackets with slotted adjustment holes. The two left and right blades are set to work opposite each other at 45° angles to the row. As the tractor



**Right and left Spring Hoe Weeder blades circulate vigorously beneath the surface to mulch, weed and aerate, without disturbing tender young crop plants.**

travels forward, the spring blades circulate vigorously beneath the surface. "This compression and vibration disturbs the soil and efficiently mulches and weeds at the same time," explains Bezzerides. "The plants themselves are not disturbed because their root systems are firmly established."

The model No. 1 unit has four blades, 16½ in. long. Each blade has a working tip area of 6 in.

**Spyder Wheels:** They're made right and left hand and are designed to work ahead of the Spring Hoe Weeder. They do not leave a smooth ridge or shoulder that dries out. The staggered teeth of each "Spyder" mulch the soil in an uneven pattern which is easily loosened by the Spring Hoe Weeder.

Unlike some tools, the Spyder does not form clods which are a problem in soil cultivation. The right hand

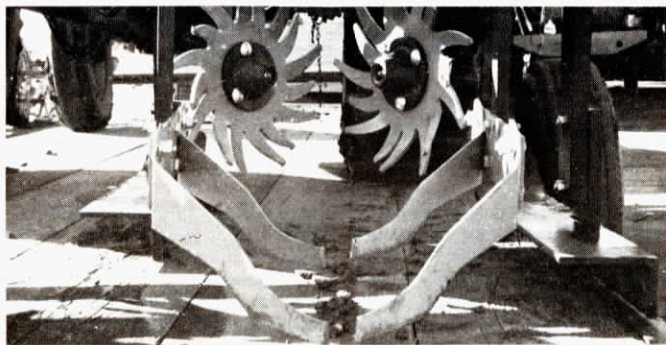


Photo shows Spyder wheels in front, and the spring Hoe Weeders following behind.

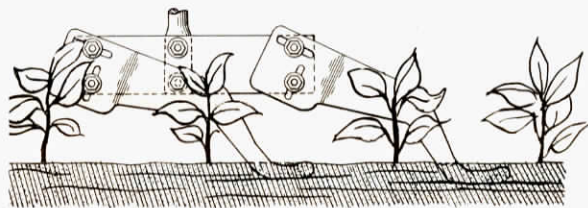
Spyder is mounted on the right hand side of the row. With the hub towards the plant, its teeth are pointing towards the plant in front, and pointing up in front, and pointing down in the rear. The left hand unit, mounted on the left side of the row, will also have its teeth and hub also facing the plant.

"Main purpose of the Spydres is to break the crust before the plants are up, or right after they are up. They do a terrific job of aerating the soil around the plants. In latter stages of plant growth, the Spydres can be reversed — that is mount the left hand Spyder on the right, and the right on the left, with the shields facing the

rear. "This setting, coupled with the Spring Hoe Weeders mounted on the rear, makes for an ideal combination for lay-by cultivation," Bezzerides points out.

Both the Spyder and the Spring Hoe Weeder attachments are available with adjustable flat or round mounting standards or "stems". A set of Spring Hoe Weeders (4 "fingers" and 2 mounting standards) sells for \$56.55. Spyder wheels retail for \$88.40 per pair.

For more details, contact: FARM SHOW Followup, Bezzerides Brothers, 14142 Avenue 416, P.O. Box 211, Orosi, Cal. 93697 (ph 209 528-3011).



Drawing shows depth and position of Spring Hoe Weeders.

## BOOSTS GAS MILEAGE '100 MILES PER TANK'

# New Kit Converts V-8 Engines To V-4

Big car owners concerned about soaring gas costs are snapping up a new auto conversion kit that makes a V-4 out of a V-8 engine with no more tools than a few wrenches and about one hour's time.

"We wanted a do-it-yourself kit that made no change in internal engine parts, and could be reconverted back to V-8 in less than an hour," says Carroll J. Lucia, co-designer of the kit and acting president of Powertec, Inc., Suamico, Wis.

The kit disables four cylinders by replacing four intake rockers with dummy pushrods and metal bridges. An adjusting screw at the valve end of each metal bridge holds intake valves permanently open, leaving pistons to simply shuttle air back and forth between the inactive cylinders.

The other change made is to replace the original carburetor with a special small carburetor intended for four cylinders. It mounts on a adapter

that closes off intake to the unused cylinders.

That's all there is to it. If ever you want to reconvert back to eight cylinders to haul a trailer, for example, or drive through mountains, Lucia says you can do it in less than an hour (leaving the "V-4" carburetor installed in most cases).

After the conversion, ignition timing and all other tune-up remains the same as on the original V-8. However, the carburetor needs special adjustments and those instructions are included with the kit.

What happens to acceleration and power in the converted cars?

"You trade 'extra' acceleration for 'enough' acceleration," answers Lucia. "Many big cars are overpowered anyway and shift into high at about 20 mph in normal traffic. With four cylinders, the automatic transmission won't shift out of low until 20 or 30 mph. In short, the automatic



This 8 cyl. car, which Lucia converted to run on only 4 cyl., gets about 100 more miles per tankful of gas.

transmission gearing supplies the extra torque needed after losing four of the eight cylinders. V-8's can often be out of time and you never notice because you have extra power," he adds. "Even with seven cylinders you have more power than you need."

Your new V-4 won't tear up the road, but Lucia says converted cars handle highway speeds with no problem — and the passing gear remains in service. It amounts to having the power you need with no waste.

The conversion kit is not for everyone, Lucia emphasizes. In gen-

eral, the kit works well on engines over 400 c.i.d., but not so well on smaller engines, or engines with high compression ratios. Because of the variables involved, Lucia doesn't like to predict gas savings, but does speculate that "you'll probably get 100 miles more per tank."

The kit comes with everything needed to make the conversion, including complete instructions. Sells for \$250.

For more information, contact: FARM SHOW Followup, Carroll J. Lucia, Powertec, Inc., P.O. Box 114, Suamico, Wis. 54173 (ph 414 434-2363).