This machine slices beet petioles and similar crop samples rapidly and uniformly . . .

A Green Plant Sample Slicer

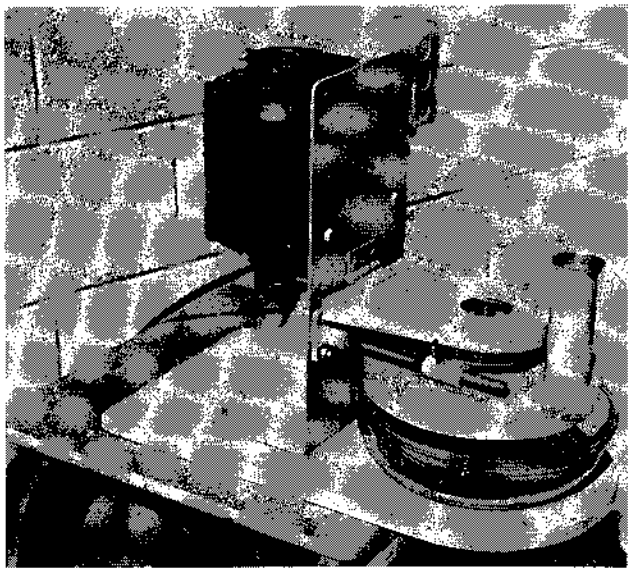

Fig. 1 The green plant sample slicer

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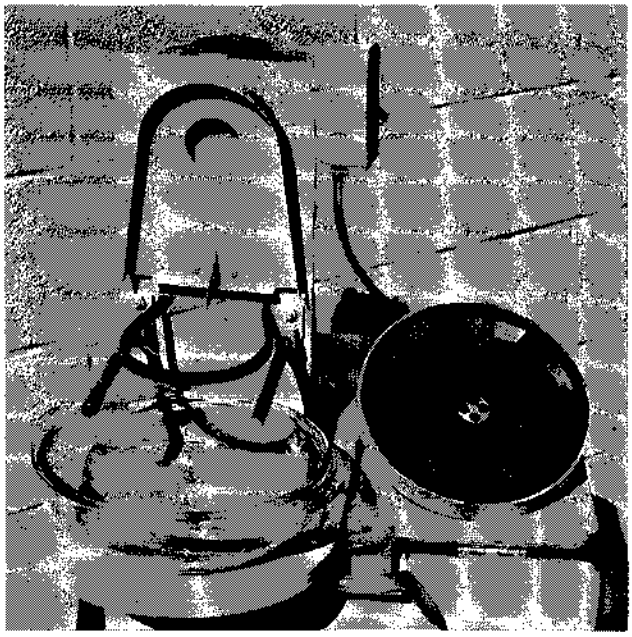

This is a contribution from the Northwest Branch, SWCRD, USDA, with the Idaho Agricultural Experiment Station cooperating.

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DURING the growing season many sugar beet petioles, cornstalks, corn leaves and other green crop samples are required for analyses. These samples usually are sliced into small uniform pieces. The former slicing procedure took too much time, did not produce samples of uniform length, and did not always cut the stringy portion of the material. There was also the danger of one sample contaminating the next.

This slicer handles crop samples fast and with uniform cut. It can be easily cleaned.

The machine is small and lightweight enough to be easily transported in the laboratory (Fig. 1). It resembles a small rotary lawn mower except that the sample material is fed into the top of the machine (Fig. 2). The length of the sample pieces is controlled by an adjustable gage mounted under the cutting blade.

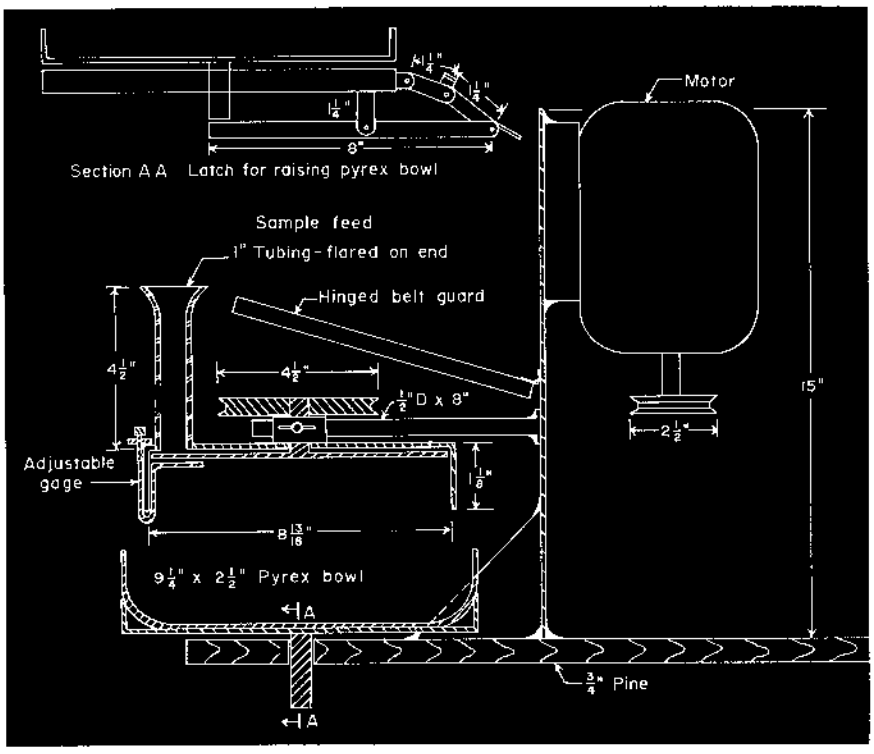

Fig. 2 Schematic of the green plant sample slicer

The cutter blade revolves in a steel housing at approximately 950 rpm. A ¼ hp electric motor is used; power is transmitted by a V-belt. The sample pieces drop into a shallow glass bowl. The cutter assembly can be removed for cleaning by loosening two thumb screws. This same arrangement adjusts the V-belt tension. Between samples, the cutter assembly is washed with water and dried by forced air.

This machine has greatly reduced the time required for preparing green sample materials. The samples are uniform in length and, because of the ease in cleaning, there is little danger of sample-to-sample contamination. • •