of conditions. The principal advantages of this machine are portability and ease of handling and transporting. Certain shortcomings of the Scythette are evident but it seems to be a real labor saver where fairly large plots need to be clipped. This machine is manufactured by Hoffco, Inc., Richmond, Indiana, and the 1951 price was $147.50 at Corvallis.

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A PROGRAM OF RESEARCH IN THE ECONOMICS OF RANGE LAND IMPROVEMENT

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Western people long have been interested in making maximum use of range land. In recent years growing populations and good incomes have swelled the demands for meat and wool, thus encouraging high production. But rising costs and uncertain market prices, along with a growing awareness of the needs for conservation, have increased interest in economic problems of range land use and improvement. Ranchers want to know the costs and returns to expect from range improvements. Public land administrators and the public want to know the costs and returns of improvements which affect water supplies, recreation, sedimentation, and the tax base, as well as supplies of meat and wool.

The Western Agricultural Economics Research Council is sponsoring a program of economic research to help meet these demands for economic information on various aspects of range land improvement. This research is based on the notion that much range land is economically, as well as physically, capable of greater production. In general, it will analyze costs of range improvement practices and incomes from such practices, including profits to operators, increased productiveness of public land, increased incomes to ranching communities, and improved public values. It will also examine economic effects on livestock management and ranch organization which may result.

This economic research program will be conducted cooperatively, primarily by State agricultural experiment stations. Some stations are now doing research of this type, and an expanded program is planned through funds supplied through the Research and Marketing Act. Study of the economics of range improvement is considered to be only a phase of a broader field of research on all aspects of range utilization. The economists, working closely with other range technicians, should be able to help answer many of the current questions about improving and using the range lands of the West.

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NEW EQUIPMENT FOR THE 3-STEP METHOD

The 3-step method of estimating trend in range condition described by Parker (1951) utilizes a modified line-point transect (in step one) in which "micro"-plot observations along the transects are made by means of a ½-inch diameter loop mounted on a stiff wire handle. Placing and stretching the steel tape used to define the permanent transect