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A UNIFIED COMMAND AND DEMOCRACY IN AGRICULTURE[1]

By President JAMES D. HOSKINS

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No question to-day, I dare say, is more subject to debate than the problem of a unified command. Yet it is scarcely a matter of debate. Military experts, statesmen, laymen in high quarters and an aroused public are demanding a unified command! For the United Nations at large, for the armed services of each, and for the wayward committees, commissions, bureaus and departments throughout our decentralized democracies—the immediate postulate of hope for victory in this war is a unified command. It is more of a battle cry than an argument.

While we confess to the need for such a command in war, let us not forget for a moment what we are about. The perils of the cure are but little short of those of the disease itself. We are but fighting fire with fire. For the ultimate potentiality of the unified command is the totalitarian state. Our security lies in our recognition of both the strength and the weakness of democracy. It lies in our ability to put aside our inherent weakness of individualism and prolonged debate in order to assume the full power of our strength in unity of purpose under a unified command. That we are slow to do so is but evidence of our whole-hearted commitment to decentralization of authority and to local autonomy. Our departure from these basic tenets of democracy is but temporary and for the sole purpose of winning a war. Otherwise,

[1] Address by the President of the Association of Land-Grant Colleges and Universities at the fifty-seventh annual meeting in Chicago, October 28, 1942.

A GRAVITY WRITING LEVER FOR RESPIRATORY TAMBOURS

THE superiority of tambours with gravity writing levers is quite apparent to all who have supervised laboratories in pharmacology or physiology. We have found a very simple and inexpensive modification of the Marey tambour to be a satisfactory substitute for the more expensive instruments now on the market.

The principle of the gravity writing arm is secured by making a simple carrier into which is fitted the ordinary writing arm in such a manner that gravity will hold it in contact with the drum. This carrier is made from a piece of 30-gauge metal (we use aluminum) about 1½ inches square, plus about 3 inches of 18-gauge

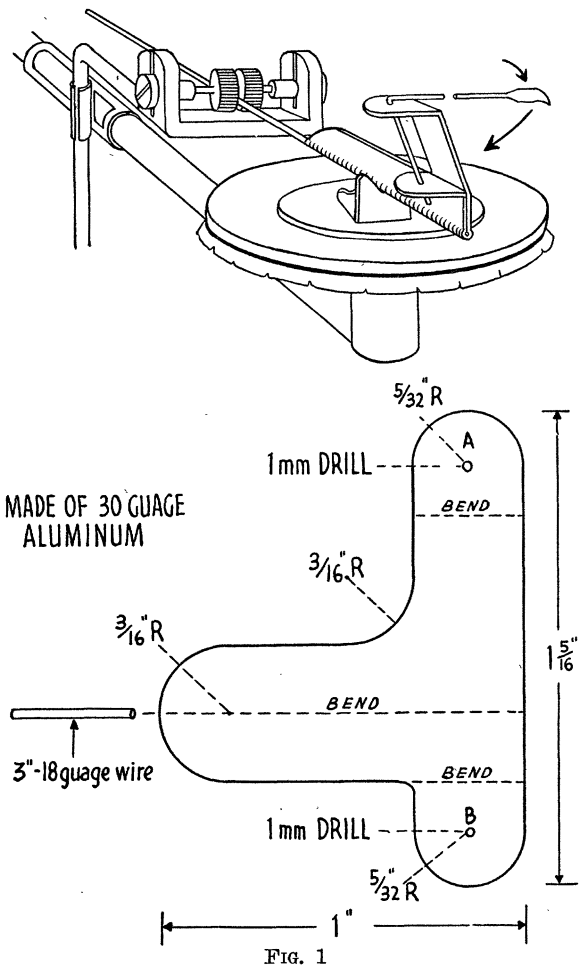

FIG. 1

wire. The figure shows the pattern for the carrier. The metal when thus shaped is folded over one end of the 18-gauge wire and crimped so as to hold. The wire is then placed in the spindle in the same manner as the old lever wire. The old writing arm is cut to the desired length and about one-half inch bent to nearly a right angle. The short arm of this right angle is inserted in the holes A and B, as shown in the figure. To adjust the swing of the arm to gravity it is only necessary to tilt the carrier a little toward the face of the drum. The pressure on the drum may be varied by the amount of tilt given the carrier and by increasing or decreasing the weight of the writing arm.

This slight modification of our stock of Marey tambours has enabled us to salvage a large number of them at a cost of but a few cents each, and at the same time obtain practically all the advantages of expensive tambours equipped with gravity writing levers.

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A FURTHER IMPROVEMENT IN THE HARVARD KYMOGRAPH

SUPPLEMENTING the three improvements in the Harvard kymograph already described,[1] the writer has made one change which has definitely improved the kymograph drum and solved the problem of cutting off the paper.

The aluminum drums of the Harvard kymographs become badly scratched by instruments used for cutting the paper until the surfaces are no longer smooth enough for careful work. The drums may be turned down on a metal lathe until they are perfectly smooth again and while still in the lathe a narrow, shallow groove may be cut across the drum directly opposite one of the four spokes just deep enough to take a few strands of thin copper wire. A hole is then drilled one half inch from the groove into the spoke at both ends of the drum with a number 35 drill, the hole tapped with a 6 × 32 tap and a set screw one quarter inch long inserted into each hole. The wire is fastened securely to the bottom set screw and the other end of the wire is wrapped around the top set screw. Attach the paper and smoke in the usual manner. After a record is made the wire is loosened from the top screw and pulled out and down with one hand, while holding the cut ends of the paper with the other hand. In order to avoid cutting through the record paste the two ends of the paper directly above the wire and start recording just beyond that point.

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THE UNIVERSITY OF TOLEDO

[1] H. B. McGlade, SCIENCE, 91: 412, 1940.

BOOKS RECEIVED

ARMSTRONG, E. A. *Bird Display.* Illustrated. Pp. xvi + 381. Macmillan. $5.50.

FRY, CLEMENTS C. and EDNA G. ROSTOW. *Mental Health in College.* Pp. xix + 365. Commonwealth Fund. $2.00.

POLLARD, ERNEST and WILLIAM L. DAVIDSON, JR. *Applied Nuclear Physics.* Illustrated. Pp. vii + 249. John Wiley & Sons. $3.00.

Reports of the Biochemical Research Foundation of the Franklin Institute. Illustrated.