important part in their appearance. Examples of these changes were: temporary (several weeks) decrease in the size of multiple subcutaneous nodules of an amelanotic carcinoma; temporary (several weeks) decrease in size of metastases to the lung from a carcinoma of the testis; degeneration and necrosis which on two occasions was massive, as seen on pathological examination of tumors; reduction to normal on two occasions of several weeks each in the acid phosphatase level in the blood of a patient with multiple metastases to bone from a carcinoma of the prostate. Such changes have been by no means constant. They have occurred frequently enough, however, to warrant further experimental studies of the action of these and of related compounds on patients with cancer.

This preliminary report of the action of pteroyltriglutamic acid and pteroyldiglutamic acid on man reveals that these substances, as employed in these studies, are nontoxic and may be given either intravenously or intramuscularly. The absence of evidence of toxicity, as shown by clinical, laboratory, and post-mortem studies, and the ease of administration indicate that these substances are suitable for clinical use. No evidence has been presented in this report to suggest that these substances should be employed in the routine therapy of patients with cancer. Enough has been learned from these studies, however, to indicate that further investigation of the action of these and related compounds would be of interest.

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IN THE LABORATORY

A Mincing Apparatus for the Preparation of Embryo Extract for Tissue Culture[1]

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In order to obtain more uniformity in the preparation of embryo extract, a number of substitutes have been suggested for the tedious method of cutting with scissors until pieces of tissue are too small to be identified. One of the simplest of these is the method suggested by Earle (*1*) in which a piece of monel metal screen of known mesh size is inserted in the base of a syringe, enough pressure then being exerted on the plunger to force the embryonic material through the mesh. This works satisfactorily with young embryos. If, however, one is using chick embryos of 10 or more days of incubation, two problems arise: (1) it is very difficult to exert enough hand pressure on the plunger to force the material through the screen; and (2) the increase in pressure is accompanied by danger of breakage of the syringe.

To circumvent these difficulties the equipment illustrated in Fig. 1 was devised and made of monel metal with the help of Russell Douglas, of the Physics Department. The tubular cup (A) is large enough to contain at least two 10-day chick embryos. At one end the cup is closed by a disc perforated by holes about 1 mm. in diameter. At the other end the inside of the cup is threaded to match the threads on the plunger (B). The latter is equipped with a horizontal handle by means of which the plunger can be screwed in far enough to force all the material in the tubular container through the holes in the base. For convenience, and also to avoid handling the equipment when sterile, a holder (C) was made which fitted around the cup and could be tightened by means of a screw in contact with a flattened area on the outside of the tubular container (A).

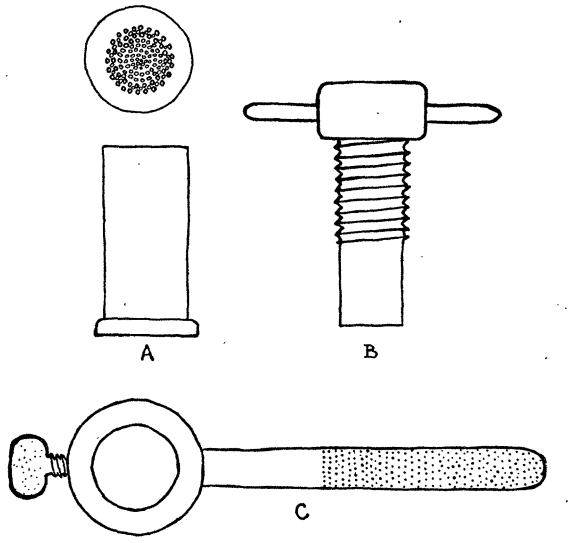

FIG. 1

This piece of equipment has proved very useful in our laboratory during the last few years. There is no danger of breakage, and the handle on the plunger and the screw arrangement make it possible to exert considerable pressure with a minimum of effort.

[1] Contribution from the Department of Zoology, No. 216.

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