

Carlos, the aforementioned Ensign and Pilot assure me to be the best and freest of shoals that could be desired and so deep that one can come close inshore everywhere with big ships and that there are bars and rivers so that they can go inland, in particular the bay of Pooy where, say the Indians, Governor Hernando de Soto disembarked and on account of its capacity a fleet, and indeed fleets, may enter.)

This was written almost precisely seventy-three years after De Soto landed, and, while I am well aware of the fallibility of Indian tradition when extended over a long period of time, seventy-three years may be spanned by a single life, and the landing happened when the parents of most of the adult Indians in Tampa Bay in 1612 were alive. Moreover, the event must have been of exceptional importance to them, as the first intimate contact they had with representatives of the white race. The conclusion seems inevitable that it was in Tampa Bay that De Soto disembarked his army.

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AGAIN "WHY DANDELIONS?"

THE recent note in this journal¹ by Emmett Bennett on "Why the Dandelion?" contains some statements which should be commented upon in order that misconceptions may not follow.

It can be agreed that the dandelion leaf clearly excels other commonly used vegetable green leaves in the diet, in protein, fat, carbohydrates, iron and ash. The content of vitamins is only on a par with that of others. Sherman's analyses do not show that the dandelion excels in calcium. My own analyses convince me that it also does not excel in phosphorus, although the results of Sherman and Bennett do point in that direction. The phosphorus content (in which I am particularly interested) is compared in Table 1

TABLE 1
MG PER CENT. OF PHOSPHORUS IN DRY MATTER²

	Dandelion	Spinach	Celery	Lettuce	Cabbage
Sherman ³	1.07	0.55	0.80	0.81	0.34
Bennett ⁴	0.51	0.36		0.26	0.28
Youngburg ⁵	0.44	0.82	0.74	0.45	0.47

with four other commonly used leaves. This table will also serve to show that there is much variation in analytical figures for leaves. This is most likely due

¹ SCIENCE, 80: 142, 1934.

² Sherman's figures are calculated from his values on the moist basis.

³ "Food Products," third edition, The Macmillan Company, New York, 1933.

⁴ *Loc. cit.*

⁵ Unpublished data.

to a real difference in phosphorus content, but also to age and selection of samples and to analytical methods and technique.

On the whole, considering chemical composition, taste, convenience in obtaining by the consumer, cost, etc., I believe that the dandelion is eaten not because its chemical composition is outstanding, but because of the human desire for variety in taste of food and the novelty of picking and preparing the green leaves at no cost.

If the dandelion excelled in taste it would have supplanted spinach, cabbage, lettuce, etc., in our dietary; on the contrary, since it is somewhat inferior in taste, we do not find it on the market; other similar vegetables have become preferred from the beginning and have routed the dandelion except as a novelty.

Perhaps the statement "Our taste is not as fallacious as we sometimes think" is neither affirmed nor denied by the above.

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PROGRESSIVE DEAFNESS

ABOUT 20 per cent. of the cases of progressive deafness, so-called otosclerosis, present an array of neurologic signs. In a definite proportion of these cases the deafness is merely symptomatic of a localizable intracranial lesion, and responds to operative or other therapy directed at the lesion.

In a fairly large per cent. of the cases the scattered nature of the neurologic signs do not permit of localization of the cerebral pathology. These cases present with regularity an abnormal response to the head-neck past-pointing sign described by me in 1929, which has proved to be a reliable index of pressure on the brain-stem.¹

In recent researches on this latter group of cases there has been brought to light a new and unsuspected type of intracranial lesion giving rise to deafness of the type generally labelled otosclerosis. Encephalograms of such cases generally reveal obstruction of the distribution of the cerebro-spinal fluid in the form of dilatation of one or more cerebral ventricles. In these cases the removal of cerebro-spinal fluid and its replacement by air, as is done in the process of encephalography, has resulted in severe traumatic nervous reaction, followed by marked improvement in hearing and other associated symptoms, such as tinnitus, and in the clearing up of the head-neck past-pointing and other neurologic signs.

Though the exact nature of the pathology of these cases has not yet been determined, it appears probable that it is adhesions of the meninges, with possibly cyst formation, consequent upon injury or disease;

¹ E. M. Josephson, *Laryngoscope*, January, 1929.

and that the process of replacement of cerebro-spinal fluid by air causes their disruption.

E. M. JOSEPHSON

THE OXIDATION OF CARBON MONOXIDE CATALYZED BY NITROGEN DIOXIDE

THE rates of this reaction at 500° C. have been studied. The effect of NO_2 increases to a maximum. This can be explained readily by assuming that O atoms are furnished by the NO_2 which are removed by NO as its concentration is increased. The catalyzed

reaction was found to be very sensitive to small amounts of hydrogen or water vapor, the rate increasing rapidly to infinity, as the concentrations of these substances increases. This effect suggests the appearance of atomic hydrogen chains in the system, which increase the total rate of oxidation. A complete study of these reactions will be presented shortly.

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SCIENTIFIC APPARATUS AND LABORATORY METHODS

A DEVICE FOR MICROMANIPULATION

DURING the summer of 1930, while working at the Marine Laboratory of the Collège de France at Concarneau in Finistère, a situation arose which led to the construction of a very simple device by means of which it is possible to accomplish, in a slightly crude way to be sure, many of the relatively delicate operations ordinarily requiring the use of one of the more complicated and expensive types of micromanipulator. Since it is easily constructed at no expense and has numerous possible applications, it may very well be of interest to other investigators and hence is described here.

The question which was being studied involved three types of manipulation, *viz.*, the removal of a rather tough membrane from an egg, the sectioning of the egg in a definite plane and the subsequent isolation of the two fragments of the egg. After numerous attempts to manipulate a fine glass needle-knife and a micro-pipette free-hand under the compound microscope, an experience which any one who has had no previous training will find most irritating, a small appliance was made which may be used with great dexterity by any one who has had any experience with the manipulation of the ordinary slide. Free and accurate movement in any direction depends on the fact that the experimenter is acquainted with the direction of movement of the object on the slide but has to learn the movements of a needle or similar piece of equipment moved by hand only to find that even after considerable practise such motions are likely to be jerky at the very moment when they should be most steady. The pipette or needle is therefore held stationary in the center of the field, while the slide bearing the egg or other object to be worked upon is moved from place to place on the carrier. One has the additional advantage of a moist chamber for the culture. With very little practise it is possible to become quite skilful in the use of the apparatus.

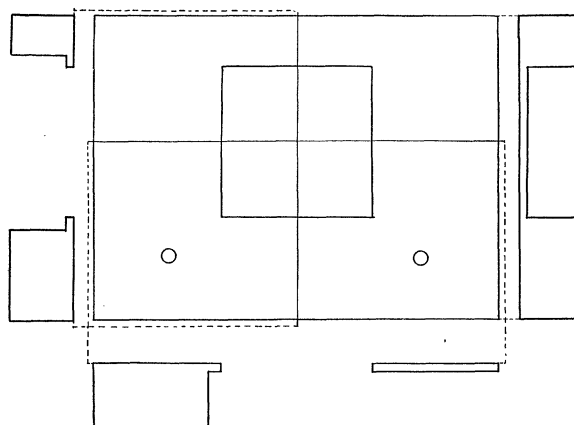


Fig. 1 ($\times \frac{1}{2}$).

Drawings of the surface view as well as projections are given in Fig. 1. The measurements are for a convenient size, which may, of course, be varied as desired. Wood may be used in constructing the holder, though care must be taken that a non-porous variety is selected. The block must be planed and well sanded to reduce to a minimum the friction between the bottom of the block and the stage. It is also essential that the finished product be of equal thickness throughout if the object is to remain in focus as the carrier is moved from one position to another within the field. The exposed surfaces of the block may be waterproofed by waxing if desired, but none should be put on the lower surface, as that will increase the friction between the bottom of the block and the stage and irregular movements will result.

The apparatus may be described best in terms of its use. A piece of square filter paper is folded so that it is not over $\frac{1}{2}$ inch wide and $4\frac{1}{2}$ inches long. This is wet with tap water and placed in the undercut recess seen in the projection at the left and at the left of the projection below. Care must be taken that the filter paper is not too wide, for in that case it may touch the stage or moisture from it may dampen the bottom of the carrier. The clips of the