

might get some light on the peculiar features of flotation and settling phenomena of plankton diatoms in sea water.

While my survey of the literature of sedimentation has not been comprehensive, it has been fairly representative, and I have been surprised that no mention has been made of the use of delta formation in the study of microscopic sediments. It has been many years since I first noticed the formation of deltas deposited in the process of filling Sedgwick-Rafter chambers, and it seems to me that any one caring to experiment a little could get excellent results by studying microscopic sediments through use of the delta principle.

I have been too closely occupied with my own routine to give much attention to the possibilities of the method, but I have tried it out a little with a sediment consisting mostly of particles which sank at high speed. With this material injected into a jar of water from a pipette bent to throw the particles directly horizontal at a height of about one inch from the bottom of the jar, I got a delta formation which seemed to have the particles sorted out to about the extent commonly seen in case of the larger particles composing an alluvial fan at the bottom of a moderate slope.

I believe that a little experience would enable one to regulate the height of the jet of sediment above the bottom, the distance from the sides of the vessel, the speed of flow from the jet and the volume of the jet so that the components of a mixed sediment would be fairly well separated in the delta. It appears also that the position of a particular type of particles in a delta formed under known conditions of distances, viscosity of fluid and speed and volume of the jet might provide an index to their rate of settling, as compared with other particles for which the rate may have been determined.

In addition it seems probable that by use of a beam of light thrown to particular or different points in front of the jet in a tall vessel the spread of particles from the jet and their processes of sinking might be followed and a more accurate understanding of their sinking behavior obtained than seems to be available at present. By using fluids of different viscosities for comparison, it might be possible, perhaps, to reach results of fairly high accuracy in this way.

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A NEW USE FOR CELLOPHANE

It is sometimes convenient to make records of a permanent nature which can be reproduced on a

screen by an arc lamp projection lantern. This can be accomplished in a very simple way at very low cost. Briefly, it is a method of typing on cellophane.

Cellophane is placed upon the carbon side of a sheet of carbon paper, which is placed in a typewriter with a backsheet to protect the rubber roll. Next the typewriter ribbon is adjusted the same as in the making of stencils. The letters which are produced in this way are dark and sharply defined. If a permanent record is to be made, the cellophane is placed between two pieces of glass cut to the size of projection lantern plates. If some discarded lantern plates are available, place them in water for a short time and then the emulsion can be scraped off. The pieces of glass are then sealed around the edges with mending tape. If the record is not of a permanent nature, the cellophane can be used between the plates without the necessity of the plates being sealed.

In making a graph the procedure is the same, with the exception that the graph is drawn on the cellophane with a pencil. The pencil will not mark, but a clear record is obtained from the carbon paper.

Care should be exercised in handling the cellophane, as the completed work can be rubbed off with the hands.

This method has proven satisfactory in the reproduction of the words of songs for chapel exercises and in the making of blueprints and in the drawing of graphs and diagrams to be used during an illustrated lecture when it is impossible to have the use of a blackboard or when a blackboard is not available. These are a few of the uses to which this work is adapted.

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A NEW MEDIUM FOR BAS-RELIEF MOLDS

DURING the past spring the science department of the Fountain Valley School of Colorado carried on a series of experiments at Chichen Itza, Yucatan, through the courtesy of Dr. Sylvanus G. Morley, of the Carnegie Institution. These were to determine a technique for rapidly making accurate and durable paper casts of the Mayan bas-reliefs in stone. The material selected for trial was a stereotype wet mat, known as "Nu Tex D," supplied through the courtesy of the Burgess Cellulose Company, of Freeport, Illinois.

After the usual run of failures and half-successes a successful technique was developed. The mats were soaked in water at 85° F—the temperature of the available supply—for several hours. They were then split so that the treated surface of the mat was backed