On a calm, very hot afternoon in August, 1931, in the level region of east central Illinois, a straggling flock of turkey buzzards were observed approaching from the north at a height of approximately five hundred feet. They were soaring along on a straight course with wings stationary. Not far from the observers they came underneath one of the scattered cumulus clouds present at the time and at once discontinued their flight toward the south and began to soar in circles, keeping directly beneath the cloud. During this circling, with wings still held stationary, they rapidly gained elevation, so that the course of each bird became a spiral. This upward, spiral, soaring flight continued for some minutes until the birds had become hardly visible, when they again resumed their southward course at a much greater elevation than before they had come underneath the cloud. A few minutes later a second flock of about a dozen came along from the north and under the same cloud gained elevation, as had the first one.

This is evidently a case where the birds made use of the upward air current beneath the cumulus cloud to gain elevation without resorting to wing strokes and the writer has been wondering if this is matter of common observation.

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ON THE EARLY HISTORY OF PLATINUM

IT is quoted generally throughout text-books and related literature that the first mention of platinum occurs about 1750. James Lewis Howe, in his "Bibliography of the Metals of the Platinum Group," including the years 1748 to 1917, states that the first reference to platinum is in the volume of don Antonio de Ulloa, "Relacion historica del viaje a la America Meridional," published in Madrid, 1748. The next reference is of 1751 when platinum was described in the literature by Watson and Brownrigg, and in the same year the properties of the ore were described by T. Scheffer.

As we know from historical record, don Antonio de Ulloa was not the first to write of the New Americas nor even among the very first to go there from the old country, so that it would not be altogether amiss to suppose that earlier commentators on the new lands, especially on Nuevo Granada as the Republic of Colombia was then known, might make mention of this curious "unripened gold"—as the Indians indigenous to those regions where it was found believed it to be and had planted it back in the river bed to give it more time to ripen into the yellow metal gold. In the Archivo General de Indias in Seville and in the Archivo Historico and Biblioteca Nacional in Madrid, Spain, there are kept the records of the transactions, descriptions and observations in minute detail between these extraordinary colonies and their mother country. There are, in addition, other libraries and private collections in Spain pertaining to the Americas, but it was among the three named that I was engaged upon another problem when I found references to platinum dated 1735. Some of these preserved documents refer to the shipment of rather large quantities (in one case 18 pounds) of alloyed metal which was called platina. In one document mention was made of a refined platinum, which had been treated with mercury prior to its shipment to Spain.

This (1735) is twelve years before don Antonio de Ulloa set out from Spain to make his scientific voyage (to measure meridian) and subsequently write his "Relacion Historica," and I have reason to believe that earlier references exist among this literature.

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REPORTS

THE INCORPORATION OF SCIENTIFIC SOCIETIES

AT the Cleveland 1930–31 meeting of the American Society of Plant Physiologists the question as to the advisability of incorporating the society was referred to a committee.

Of the twenty-one scientific societies investigated, fifteen are incorporated. Seven of these societies are incorporated in the District of Columbia, one in Illinois, one in Wisconsin, one in Massachusetts, one in New York and one in Pennsylvania. As the reasons for and ways of incorporating learned organizations may be of interest to other scientific societies the findings of the above committee are here summarized.

The advantages of incorporation are important, inasmuch as it establishes a learned non-profit organization as a legal entity, thus bestowing:

(1) Freedom from financial responsibility in any lawsuit against the members on account of any action of the society.

(2) The ability to hold property and to receive gifts and bequests.

A few scientific societies reported to our committee that incorporation had resulted in the accumulation of funds for research, etc., by giving greater security to endowment funds and thus making it easier for donors to give relatively large gifts and bequests.

The possible disadvantages are related to the freedom of action of the organization. An unincorporated

society may do as it chooses, whereas upon incorporation the organization must comply with the laws of the jurisdiction where it is incorporated. Practically, however, the disadvantages resulting from this restraint or freedom of action is regarded by legal authorities as being slight. The statutes of some jurisdictions impose fewer restraints than others and the requirements for headquarters, annual meetings, reports, etc., differ in different jurisdictions.

The procedure of incorporating under the laws of the District of Columbia, and also in certain other jurisdictions, is relatively simple. The statutes of the District of Columbia relating to corporations and of certain other jurisdictions relating to learned *non-profit* organizations neither require a resident director nor the maintenance of an office in the jurisdiction. Meetings may be held anywhere and at any time without restriction.

The principal requirements under the laws of the District of Columbia may be taken as an example of the general procedure: (1) Any three or more persons of full age, citizens of the United States, the majority of whom are citizens of the District of Columbia may incorporate; (2) a certificate in writing must be filed in the office of the Recorder of Deeds stating (a) the name of the society, (b) the term for which it is incorporated, which may be perpetual, (c) the business and objects of the society, (d) the number of its trustees, directors or managers for the first year of the incorporated society's existence.

Upon the execution of the articles of incorporation of the society and the deposit of same with the recorder of deeds, the incorporators then form a temporary organization in Washington, D. C., at which meeting one of their number is elected temporary chairman and another temporary secretary. The constitution and by-laws of the organization as then standing are adopted, and all the then existing members of the society are declared elected members of the corporation with their present rights and privileges. The meeting then adjourns to assemble at the next regular place of meeting of the now incorporated society.

Many of the scientific societies investigated dispensed with legal assistance. Under such conditions the only expense involved is the registration fee of two or three dollars. A few societies, however, obtained advice of counsel in making such changes in their by-laws to conform with the statute under which incorporation is sought. The expense in such cases is about one hundred dollars.

A comprehensive discussion of the business relations of non-profit corporations is given by Harriman in Corporate Practice, Review 1, 7–11, 1929.

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SCIENTIFIC APPARATUS AND LABORATORY METHODS

APPARATUS FOR DETERMINATION OF CO_2 AND O_2 OF RESPIRATION

IN determining the respiration rate of fruit in storage a modification of the apparatus described by Magness and Diehl[1] has been used. The apparatus as modified has proved very satisfactory and is described here in the hope that it may be useful to others interested in respiration rate determinations.

With this apparatus the O_2 consumed as well as the CO_2 evolved can be measured. It consists (Fig. 1) of a water reservoir "A" which is connected by a siphon to a beaker "B" in which the water is maintained at a constant level by means of the siphon feed. The beaker "B" is connected by tubing to a liter-graduated cylinder "C" containing oxygen. The cylinder "C" is connected by capillary tubing to the respiratory chamber "D," which consists of a desiccator with a funnel fitted into the tubulature of the lid and the stem extending down to a second funnel which is fitted into a hole bored through the bottom of the desiccator. The apparatus of Magness and Diehl is modified in that the container for the O_2 is a graduated cylinder instead of a bottle and the beaker for the KOH solution is replaced by the two funnels in the

RESPIRATION APPARATUS

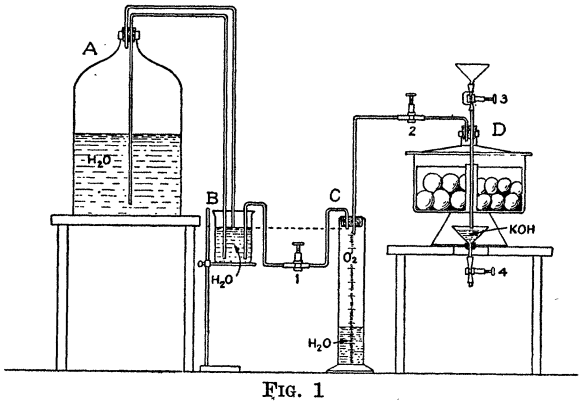

FIG. 1

[1] J. R. Magness and H. C. Diehl, "Physiological Studies on Apples in Storage," *Jour. Agr. Res.*, 27: 1–38, No. 1, 1924.