absolute and that of water vapor is 1 atmosphere, making a total pressure of about 2.3. At 120° C, or under 15 psi, the total pressure is about 3.3. Hence, in order to avoid breakage, the diameter of the ampul must be made in accordance with the formula $D \times P = 2\ t \times s$, where D = diameter of the ampul, P = total pressure inside, t = thickness of the wall, and s = tensile strength of the glass.

The lower the pressure, the more stable will the ampul be. On this principle a vacuum ampul is suggested as in Fig. 1.

The two ends of the ampul are left open for convenient cleaning. A rubber stopper is inserted into one of the necks before filling; the other is also stoppered after filling, but this rubber stopper is penetrated with a needle to evacuate the empty space. The two ends are then flame-sealed. Such ampuls will not break when autoclaved under steam pressure.

Before use, the two ends are sawed between the rubber stoppers and the sealed points. In doing so, there is no danger of glass powder or splinters falling into the solution.

These large-volume vacuum ampuls can also be satisfactorily used as containers for anticoagulant for whole blood transfusion.

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Investigation of the Coelacanth

It was my privilege to carry out detailed investigations on the first Coelacanth, and to have discovered what appears to be the area where those fishes still live.

The recent Comoran Coelacanth, although mutilated more than was at first realized, nevertheless retains most of the soft parts, including the abdominal viscera. This extends enormously the scope of the investigational work that may be carried out on the specimen. There will be still more that can be done only on parts, exudates, and secretions from an untreated fresh specimen, which it is hoped may be sought before very long.

It is in keeping with the importance and scope of the investigations on all parts of this fish that they should be assigned to leading experts in the field in which they fall. I have advised the South African Council for Scientific and Industrial Research, and have requested their approval of, and cooperation in, this matter.

Application to be included in this scheme should be sent either to the South African Council for Scientific and Industrial Research, P. O. Box 395, Pretoria, or to me personally at Rhodes University, Grahamstown. Every possible facility will be granted to selected visiting specialists, but it should be noted that there is no possibility of financial aid from this end.

The ownership of the next specimen or specimens is of less importance than proper preservation for scientific purposes.

As certain organs and body fluids require special treatment and preservation, it is intended to compile a set of special instructions to be issued to those in areas where it is likely that a fresh Coelacanth may be obtained. It will be appreciated if those interested will kindly furnish detailed special instructions composed in language as simple as possible, giving full directions and not only the names, but also the actual composition, of any materials to be employed.

Since there is a hope that more Coelacanths may be found at the Comoro Islands, it is desirable that all such materials should be available there.

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Classification of Variable Material

Somewhere we need to have exact and detailed descriptions of what nature offers us, even in the most variable material. The practice of assembling as many as possible of the phenotypes into as few as possible varieties and forms is necessary in manuals, but more detailed description should be available. For some years we have found it profitable to follow the example of the geneticists and designate by letters the different conditions that we find. For example, the common moss *Leptodictyum riparium* varies in shape of apex of leaf, in length of midrib, and in width of cells. If we represent the typical form by *ABC,* and the contrasting characters by *abc,* we actually find in nature ABC, ABc, AbC, Abc, aBc, abc. The last two have received Latin names. If we list all of these arbitrarily under one or other of the three available Latin names, we will obscure the facts as to what actually occurs. If we give three more Latin names, we will be complicating the synonymy, to no avail. And if one or more additional characters are considered, a greater number of combinations will be found.

Instead of multiplying Latin names as Greene did for *Ptelea,* and Podpera for *Bryum capillare,* I recommend the briefer and more exact description by means of combinations of code letters. The code must be adapted for each species described. It should not be concluded that the letters represent genes. When the genetics of the species have been worked out, the genetical formulas should supplant these phenotypic terms. Numerous species of mosses need this type of description. The same may be said for many flowering plants, and for many insects, birds, and mammals. This system is preferable to the endless multiplication of Latin names with Latin descriptions, to be cited ever after with the names of one or two authorities. A paper in preparation will give a detailed illustration of this method.

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