

was delivered from a cylindrical glass nozzle in the bottom of a container which executed horizontal simple harmonic motion of adjustable amplitude and period. Following the reasoning of the free-fall equation given above, one may readily compute the jet amplitudes to be expected, in the absence of damping, for any particular applied simple harmonic motion. Measuring jet amplitudes by a variety of methods, including photographic, we have compared actual with predicted values in several hundred cases.

It is learned that with low frequencies (one cycle per second or less) all of these liquids show amplitudes agreeing with the simple no-damping predictions, but that all of them, even the least viscous, show diminished amplitudes when the frequency is greater than two cycles per second. The more viscous the liquid the lower is the frequency at which this damping first appears. After its first appearance, damping always increases with increasing frequency, but at a slower rate with less viscous liquids. The variation of the damping threshold with viscosity is such as to indicate that only a liquid of zero viscosity would be entirely free from damping at high frequencies. Damping is very nearly independent of amplitude, though a slight increase with increasing amplitude may be observed.

The accompanying diagram (Fig. 1) illustrates the effects of both viscosity and frequency on the jet amplitudes.

These findings are of interest in connexion with the suggested use of recorded jet motions for the absolute measurement of seismic or other accelerations. The proposals are discussed in the communications to NATURE referred to above. It now appears impracticable to arrange a jet of any liquid which shall be sensibly undamped at frequencies so high as four cycles per second, and yet be viscous enough to fall unbroken for so long as half a second. A succession of falling solid spheres would seem to offer better opportunities for the development of the suggested method.

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Another Patagonian *Lusus Naturæ*.

RECENTLY I was interested to hear, from a friend, of the discovery in Patagonia of a representation of a human head sculptured in stone, and, at his request, the finder kindly allowed me to have it for examination.

I expected that it would be more or less of the same type as the rudely fashioned head¹ found by Prof. Franz Kühn at Punta Arenas in the south of Chile, and now in the Natural History Museum of Buenos Aires; but when the object arrived it was at once evident that, although it bears a remarkable resemblance to a human head with definite features, it owes nothing of its form to human agency, and is, in fact, a strange freak of Nature.

It was found, lying on the surface of the ground, in Tierra del Fuego, exactly where I do not know, and consists of a nodular piece of rock, weighing 1750 grams, and measuring 155 mm., 115 mm., and 75 mm. in its greatest length, breadth, and thickness respectively (Fig. 1). The surface is covered with a greyish patina, except where rubbed off on the projecting parts, which are of a dark, metallic grey

¹ This is figured by R. Hauthal, "Zwei bemerkenswerte Funde im südlichen Patagonien" (Congrès International des Américanistes. *Compte rendu de la XXIIe Session*, deuxième partie, tenue à Göteborg en 1924, Fig. 6a, p. 518), Göteborg, 1925.

colour. In appearance the stone resembles basalt, and is very probably an altered rhyolitic rock, but its nature cannot be accurately determined without submitting a section to examination under the petrological microscope. At one end there is an ancient fracture, and when the stone is set up on this

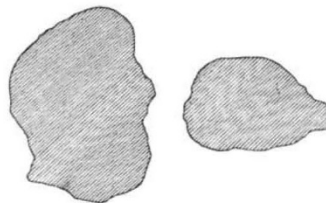


FIG. 1.—Vertical and horizontal profiles of the stone: scale $\frac{1}{4}$.

as a base, it has the appearance of a bearded head, as may be seen from the photograph (Fig. 2). The fact of the fracture occurring at what seems to be the neck serves to strengthen the illusion, giving the impression that it is a head which has been broken from a statue.



FIG. 2.—One side of the stone, from an untouched photograph: scale nearly $\frac{1}{4}$.

South America has gained an unenviable notoriety as the source of periodical announcements of sensational palæontological and archaeological discoveries, which, when investigated, generally prove to have no foundation in fact. The affair of Paso Ibáñez, in which a lump of sandstone was put forward as a fossil human skull of Tertiary age,² will yet be fresh in the memories of many, and the purpose of this note is to prevent any misconceptions as to the true nature of the object described, should it ever figure in the daily Press either as yet another 'proof' of the existence of Tertiary man in South America, or as a remarkable example of stone carving by the prehistoric inhabitants of Patagonia.

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Dwi-Manganese in Native Platinum.

CHEMICAL EXAMINATION.—Native platinum was long ago the subject of investigation and the search for elements not yet discovered. Kern, in the year 1877 (*Chem. News*, 36, 1877, and 37, 1878), A. Guyar

² The story of this extraordinary 'discovery' has been told by J. Imbelloni, "Nota sobre los supuestos descubrimientos del doctor J. G. Wolff en Patagonia" (*Revista de la Universidad de Buenos Aires*, vol. 51, pp. 39-51), Buenos Aires, 1923, and "L'uomo terziario fossile della Patagonia e la sua veridica istoria" (*Revista mensile del Touring Club Italiano, Le Vie d'Italia e dell'America Latina*), Milan, 1924.