in the beam of light, when the edges of the image parallel to the long diagonal of the Nicol are darker and those parallel to the short diagonal are brighter than the centre of the field. By placing a '1st order red' selenite between the light source and the Nicol prism, the edges of the image appear red or greenish-blue according to their orientation with respect to the prism.

The degree of lack of uniformity of illumination which can result when 'contrasty' photographic materials are used in photomicrography by polarised light, is shown in Fig. 1, *a*, *b*, *c*, which are photographs

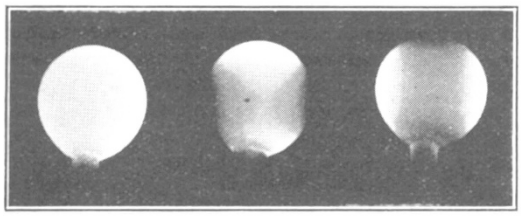

FIG. 1.

of the tungsten sphere of a Pointolite lamp. Fig. 1*a* was the ordinary appearance in the absence of a Nicol prism, whereas Figs. 1*b* and 1*c* show the appearance when a polarising prism was interposed with its plane of vibration horizontal and vertical respectively.

This effect, which is not given by either a carbon arc lamp or the sun, could give rise to appreciable errors if a tungsten arc lamp were used for spectrophotometry without the interposition of ground glass to form a secondary source.

EDWIN E. JELLEY.
Research Laboratory, Kodak, Ltd.,
Wealdstone, Jan. 14.

A Relation between the Radial Velocities of Spiral Nebulæ and the Velocity of Dissolution of Matter.

I SHOULD like to make the following comments upon Dr. McCrea's remarks in NATURE of Dec. 6, 1930, upon my letter in NATURE of Nov. 8; my comments also apply to a certain extent to Dr. Wilhelm Anderson's letter in the issue of Dec. 6:

(1) As I have shown recently (*Anzeiger der Akad. d. Wiss. Wien*, 1930, No. 16), equation (1) can also be deduced without general relativity theory from the postulate that the total energy of the universe cannot be negative, or that the negative gravitational energy of the universe corresponds in magnitude with its proper energy. By mass in equation (1) Eddington's proper mass is to be understood.

(2) It is true that a negative velocity results, as Dr. McCrea insists; I have, however, indicated this myself in my letter, where I showed that v agrees well with the radial velocity of the spiral nebulæ only in *magnitude*, that is, without reference to sign.

(3) If, again, my equation (2) is to be interpreted from the point of view of Lemaître's theory, with introduction of a temporal variation of λ, then it must not be overlooked, on the other hand, that Lemaître's theory requires further assumptions to make it complete. Such would, perhaps, be necessary to bring the assumption that the velocity becomes greater by $c/2000$ for every million light years' distance in agreement with the other assumption that the initial radius of the universe, calculated to be 1200 million light years, is doubled every 1400 million years, that is, within a time shorter even than the age of many minerals—not to speak of astronomical estimates of the age of the sun.

ARTHUR HAAS.
University of Vienna, Jan. 3.

Photographs of John Dalton.

I SHALL be glad if any readers of NATURE can assist me in tracing the present whereabouts (if still in existence) of three original photographs of Dr. John Dalton. These were taken in Manchester, at one sitting, somewhere about the year 1842, by the Daguerre process, then recently introduced into Great Britain, and so far as I know were the only photographs of the great chemist ever made. Their production has been wrongly attributed to John B. Dancer, the fact being that it was through Dancer's good offices that Dalton was induced to sit at the local Daguerre studio.

It is on record that one of the three copies passed to Dalton himself, another to Dancer, and a third to Mr. John Dale, manufacturing chemist. Dancer's passed at the time of the Jubilee exhibition in Manchester in 1887 to Mr. (afterwards Sir James) Dewar, the eminent chemist; I have also seen it stated that another (possibly Dale's) was in the possession of the late Mr. Thomas Kay, manufacturing chemist, of Stockport. There is no trace of such a photograph in the collection of Dalton's apparatus at the house of the Literary and Philosophical Society where he did so much of his work, nor in the more personal relics preserved at Dalton Hall.

Dancer's photograph was lent by him on various occasions to artists and engravers for copying, and became somewhat disfigured in consequence.

Perhaps this letter may meet the eye of someone who has actually seen one of the originals or can assist me in tracing them.

HENRY GARNETT.
3 Lea Road, Heaton Moor,
Stockport, Jan. 19.

The Black-necked Grebe.

IN the note upon this bird (NATURE, Jan. 3, p. 35) its generic name is given as *Podiceps*, perpetuating an error in orthography for which, I think, Yarrell was originally responsible and has been followed by some later writers on ornithology. On the analogy of *biceps*, *calviceps*, etc., *Podiceps* can only be translated 'rump-headed'; whereas the right name of the genus is *Podicipes* (Linn.), meaning 'rump-footed', referring to the peculiar position of the legs and feet in birds of the family Podicipedidæ.

HERBERT MAXWELL.
Monreith.

WERE all taxonomists as familiar with the classical languages as is Sir Herbert Maxwell, mistakes such as he points out would be rarer; but although they appear in Latin guise, generic and specific names need not be evolved from anything but the author's sense of propriety. The name is a label and need have no meaning in itself. The consequence of that, and of the accepted rule of nomenclature that the first legitimate christening holds the field, is that *Podiceps*, used by Latham in 1789 to designate our grebes, is now the accepted generic name.

THE WRITER OF THE NOTE.

Dimorphism of Long Chain Carbon Compounds.

FROM recent X-ray measurements (Malkin, NATURE, Jan. 24, p. 126) it is claimed that the ethyl esters of fatty acids may have two forms of chain. An account of an investigation of several binary systems of C_{16} and C_{18} compounds will shortly be published, in which it is shown that the ethyl esters are dimorphous, ethyl palmitate melting at 19·4° or 24·15°, and ethyl stearate at 30·9° or 33·4°.

J. C. SMITH.
The Dyson Perrins Laboratory,
Oxford, Jan. 29.

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