

could account for this much change in the period. There would be some increase in charge on the walls, but this would be practically equalised each time the leaves discharge in contact with the case. Whatever the explanation may be, the observed fact was thought to be of sufficient interest to put on record.

J. S. THOMPSON.

Armour Institute of Technology,
Chicago, Ill.

Processes of Colour Photography.

OWING to the fact that my article on "Processes of Colour Photography" (NATURE, Nov. 3, p. 687) was written some months ago, and to the fact that progress in this branch has suddenly become rapid, some of my statements are already out-of-date.

The commercial production of another 'tripack,' which it is also intended to market as a triple roll film, has just been announced by a new firm called Colour Snapshots, Ltd., as distinct from Colour Photographs, Ltd. It is reported that these latest packs will be available to the public within a month or two, and should prove of very considerable interest, since they are based on entirely novel principles which have previously been considered impossible. However, examples which I have seen are very promising, and there is little doubt that they will prove a great success.

The novelty is that the red sensitive film or blue printer negative is placed in the front, then the green sensitive, and finally the blue sensitive or yellow printer at the back of the pack, that is, farthest from the lens. This order fits in exactly with the requirements of any printing process, since the blue image, which gives the 'drawing' of the picture, is critically sharp.

With this pack filters of only very low factor are required, and emulsions of high sensitivity can be used so that a very rapid combination can be produced, at least as fast as the average roll film. With the more normal type of pack discussed in my article, only relatively low speeds are obtainable with the types of emulsions at present available.

When it has definitely been proved possible to take a set of three colour separation negatives which even approximate to theoretical accuracy with an instantaneous exposure, then an enormous field will have been opened up, not only for amateur snapshot work in colour, but its effects are also likely to be felt very soon in the world of colour printing and illustration and in colour cinematography.

F. J. TRITTON.

32 Lawn Crescent,
Kew Gardens, Nov. 5.

Habitats of Araucarias and Changes of Climate.

IN *Science News-Letter*, Feb. 18, 1928, referred to in NATURE of Aug. 18, p. 257, the statement is made, on the authority of Dr. R. W. Chaney, that "the living Araucaria species all prefer cool, rather dry habitats." This statement was the main reason given for the conclusion that the Gobi region of Manchuria had a dry, rather cool climate in the Cretaceous period when the dominant trees were Araucarias.

In a letter to Dr. Chaney I pointed out that the two species indigenous in Australia, *A. Cunninghamii* and *A. Bidwillii*, occur in tropical or subtropical latitudes in regions of heavy rainfall, and that other species of the genus occur in New Caledonia and Norfolk Island, which can scarcely be described as cool and rather dry.

In reply, Dr. Chaney has written: "I find that I stated that the present-day habitat of Araucaria

was in cool dry regions, a statement which should have been qualified to apply to the more common species of South America. Such errors are particularly misleading in connexion with palæo-ecology, and I greatly regret being responsible for this one."

W. B. ALEXANDER.

120 Croydon Road, Reigate.

Post-War International Scientific Meetings in Germany.

IN the "News and Views" columns of NATURE of Oct. 20 reference is made to the annual autumn meeting of the Institute of Metals planned for September 1929 at Düsseldorf as "the first occasion that any British scientific society has held a meeting in Germany since 1914."

On the occasion of the joint meeting of the Society of Glass Technology and the Deutsche Glastechnische Gesellschaft at Aachen in May last, attended by some 450 persons, our German colleagues, some of whom are prominently connected with other German scientific societies, stated publicly, and with considerable pride, that the meeting of the two glass technology societies was the first fully representative international meeting of two scientific societies to be held in Germany since the War.

The experience of our Society at this meeting was such as to lead us to believe that any other British scientific organisation arranging to meet in Germany can look forward to pleasant and fruitful results.

W. E. S. TURNER.

(Hon. Secretary, Society of Glass Technology.)
The University, Sheffield.

The Unit of Velocity.

IT is only by some such device as that suggested in Sir Oliver Lodge's letter in NATURE of Oct. 13, p. 573, that the Stroud system of units can take its place in a rational scheme of mechanics.

Multiplication and division are primarily operations with numbers; in algebra we write $2x \times 3x = 6x^2$, where x denotes a number. We may, however, in certain cases give a conventional meaning to the result of multiplying symbols which denote physical quantities; thus, if (a) denotes the unit of length, we may take the product $2(a) \times 3(a) = 6(a)^2$, provided we interpret $(a)^2$ as denoting the unit of area.

So in mechanics we may divide distance by time and take the quotient $6 \text{ ft.} \div 2 \text{ sec.} = 3 \text{ ft./sec.}$, provided we interpret ft./sec. as being the unit of velocity. We cannot, however, do this unless velocity be regarded as a fundamental concept, for the unit of which it is advisable to have some such name as is suggested.

V. NAYLOR.

11 Lyndhurst Road,
Plymouth.

Continued Self-pollination in Cotton.

IN NATURE of Sept. 1, 1928, p. 314, Mr. G. L. Kottur distinguishes between "the deterioration of a selection due to selfing" and "the hybrid vigour of the F_1 plants." Surely, on whatever theory we interpret hybrid vigour, both phenomena are manifestations of it. To attribute to hybrid vigour the greater yield of a variety over its pure line selected for yield is therefore illogical if it is maintained that there is no reduction in vigour on selfing.

J. B. HUTCHINSON.

(Assistant Geneticist.)

Empire Cotton Growing Corporation,
Cotton Research Station, Trinidad,
Sept. 25.