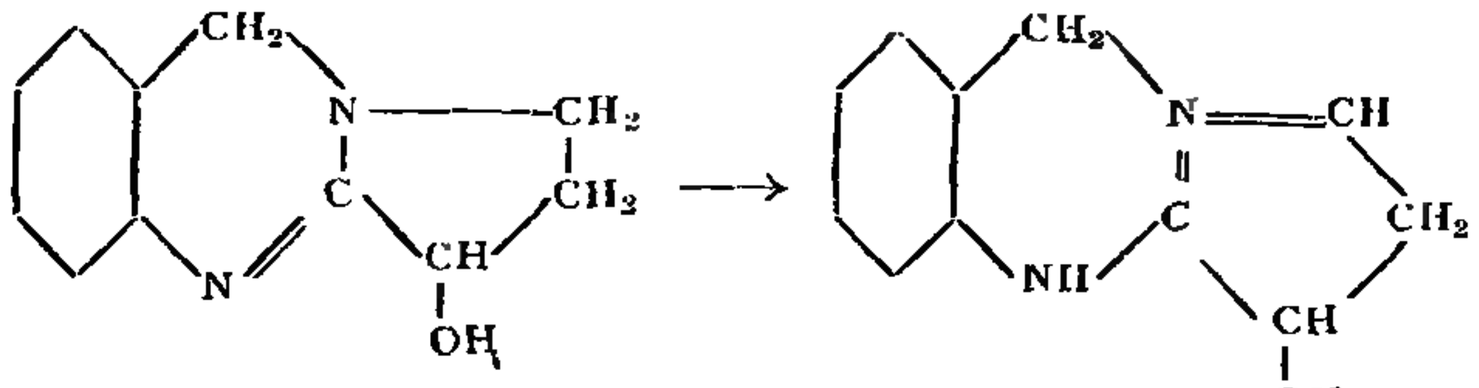
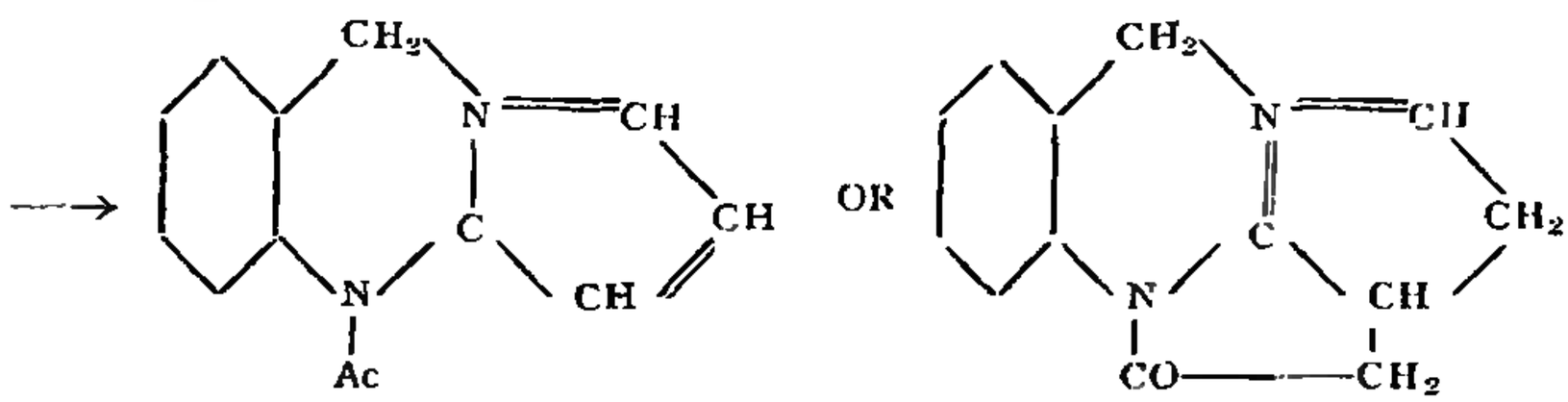
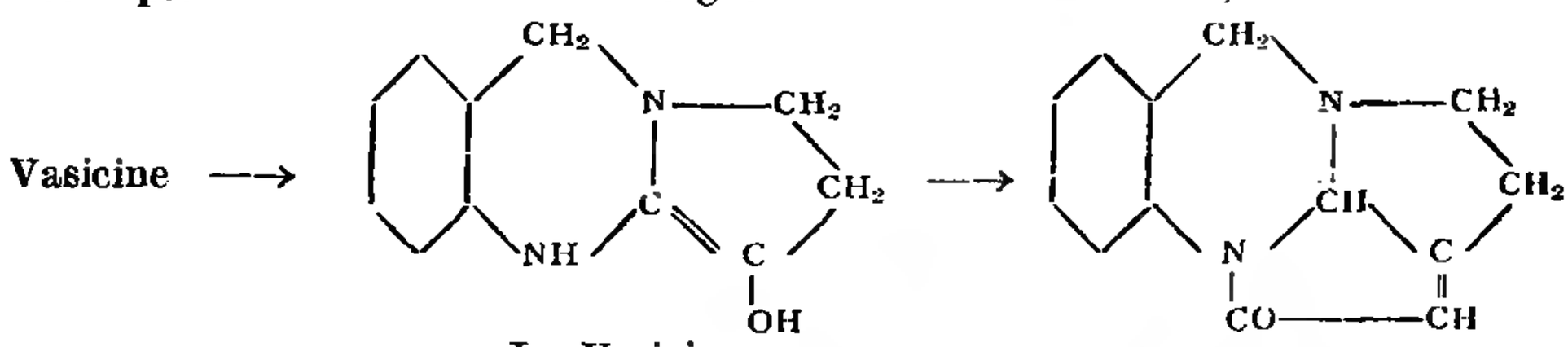
The strength of hydrogen peroxide stated by us to be 3% was a typographical error for 30%. Repeated experiments have invariably yielded the substance m.p. 168° and the constant analytical values obtained after crystallisation justify the view that it cannot be a mixture. Under the microscope the substance has a homogeneous appearance. Its formula was given by Ghose *et al* as $C_{11}H_{10}NO$; $\frac{1}{2}H_2O$. It is probably $2(C_{11}H_{10}NO; \frac{1}{2}H_2O)$, *i.e.*, $C_{22}H_{22}N_2O_3$ and its structure represented by II as it is almost quantitatively oxidised by H_2O_2 to I.

The acetyl derivative of vasicine was obtained as an oil by Spath, contrary to Ghose *et al* who record a m.p. 164°. It was this discrepancy which at one time suggested the possibility of vasicine being different from peganine. It is gratifying to note that Spath, Kuffner and Platzer[3] now find the m.p. to be 163–164°·5 in confirmation of Ghose *et al*. Its structure can be represented as below :





It is more probable that both the nitrogen atoms remain trivalent, thus :



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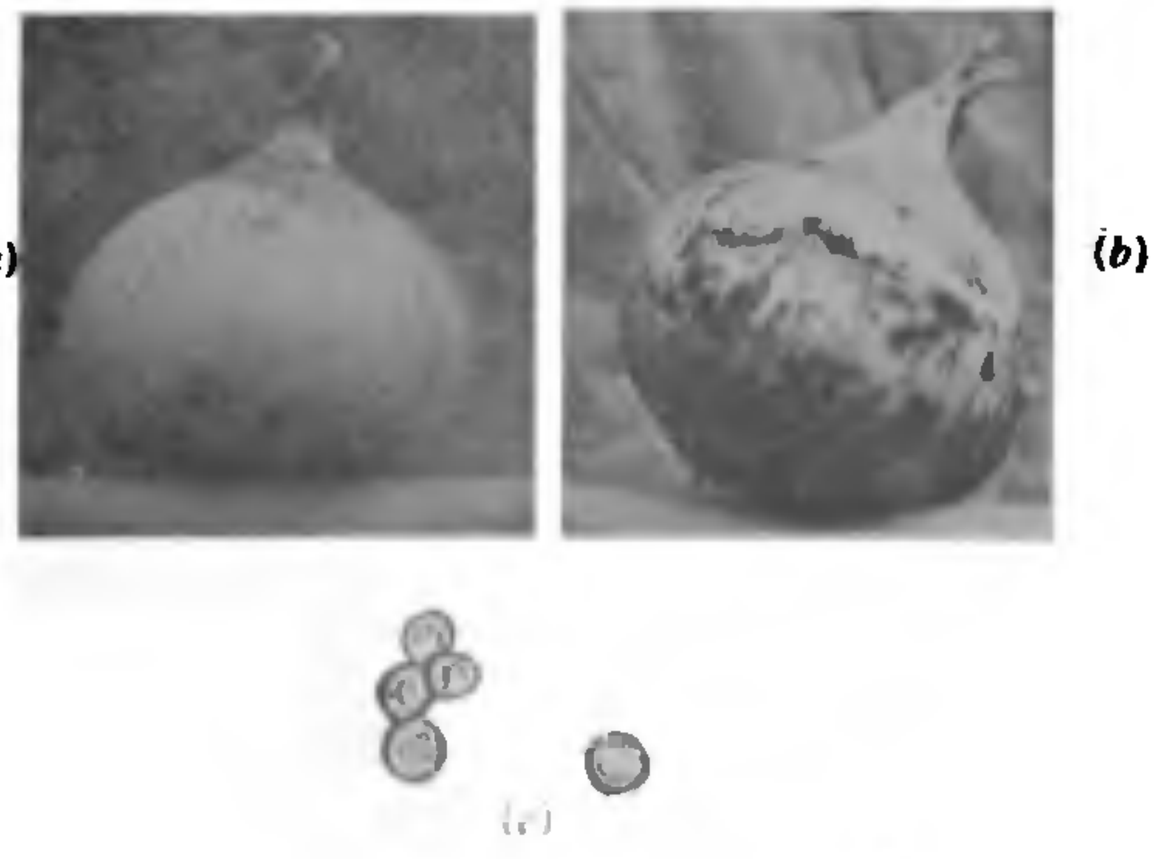
[1] *J. Am. Chem. Soc.*, 1935, **57**, 954.
[2] *British Chem. Abstracts*, 1933, **A 1**, 77.
[3] *Ber.*, 1935, **68**, 935.

Storage-Rot of Onions.

IN 1932 the attention of the senior writer was attracted towards this serious disease, which caused a waste of more than half to his onion-store. Although exceedingly common, no mention about it is found in Butler's *Fungi and Disease in Plants* (1918), *The List of Specimens in the Mycological Herbarium, Pusa* (1921), *The Fungi of India, Calcutta* (1931), *The Fungi of Bombay* (1935). The causal agent, an *Aspergillus* sp. in spite of



Baroda White Onions: (*a*) healthy, (*b*) diseased, (*c*) spores of the malady through oil immersion.

its existence in the soil, has never been found to be parasitic on the living plant. It attacks only the mature bulbs. Observations taken on different modes of storage showed the decay in (1) heaps 47·5%, (2) one layer spread on rice straw 14·6%, (3) store in well-ventilated hanging baskets 15%, and lastly (4) four to five onions woven together by their leaves and hung on a string 15%. Isolated cultures of the organism showed best growth at 34°–35° C. in the multiple incubator.

Walker and Murphy[1] have described an identical rot on onions and garlics imported in the States from Italy. *Botrytis Allii*, Munn. has been long known as Neck Rot of onions both in America and Europe and is seen to attack the inflorescence. The Indian organism seems to differ specifically from the *Aspergillus* described from America. Further observations as to the mode of attack of the organism, its physiology and its response to different methods of storage and chemical treatments are continued.

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[1] *Phytopathology*, March 1934.

A Somewhat Cosmopolitan Parasite—*Loranthus longiflorus*.

WITH reference to the article by Mr. Srivastava[1] we wish to point out that at least in Hyderabad the occurrence of *Loranthus longiflorus* on the following host-plants, many of which to our knowledge at least have not been mentioned by previous writers, has long been recorded, but the publication was detained in order to find out as many hosts as possible of this parasite. Mr. Srivastava mentions two of the new hosts which we have recorded.

1. *Psidium guayava.*
2. *Melia azadirachta.*
3. *Cordia myxa.*
4. *Anona squamosa.*
5. *Punica granatum.*
6. *Tamarindus indica* (very rarely).
7. *Citrus aurantium.*
8. *Millingtonia hortensis.*

As has been mentioned by other writers *Loranthus* is a branch parasite and flowers profusely about the months of June and July. The following hosts of *Loranthus longiflorus* are mentioned by different writers. *Bassia latifolia* and *Diospyros Melanoxylon* are recorded by Partridge.[2] Cooke[3] states that it is common on mango trees in Bombay and throughout the Konkan. Duthie[4] mentions that it is parasitic especially on mango, neem and mahua. Hooker[5] mentions nothing about the host-plants of *Loranthus*. Keeble[6] gives a beautiful account of the *Loranthaceæ* of Ceylon describing in detail the fertilization of the flower, mode of distribution of seeds, etc., but does not mention the hosts. Although this parasite is becoming somewhat cosmopolitan it is worth while recording from time to time in different localities on what new hosts it spreads. Evidently there does not seem to be any specialisation of hosts in this parasite.

Nectar fills the corolla-tube in *Loranthus longiflorus*. In addition to this Keeble mentions that "a drop is lodged behind the base of each filament between it and the corolla-lobes". It attracts small insects and birds. The latter seem to be the chief fertilizing agents. Their gentle tap breaks open the corolla-lobes which were hitherto closed. Keeble suggests that "this remaining closed of the ripe flowers is an instance of close relationship, beneficial to both parties, between flower and fertilizer; the bird knows it is worth its while to 'tap a new barrel' as it were; moreover, the parts of the flower are protected from the damaging effects of exposure to wet." It is so indeed. In the majority of the *Loranthaceæ* the seeds are dispersed by the agency of birds and in some cases by the explosions of the fruits as Dr. B. Sahni[7] states. Engler and Prantl[8] in their account of the distribution of the seeds conclude by saying that "*The stickiness (of the viscin) enables some* seeds, falling from branch to branch, to become attached; on the other hand, birds bite up the fruits and throw away the seed which is surrounded by the viscid layer" and further that seeds often pass unharmed through the gut of birds and may then germinate. Our own observations confirm much of what has been quoted. It is a very common observation that according to the nature of the fruit-coat and the seed that birds reject the former or the latter. In the case of the fruit-coat of *Loranthus* we know that it contains a lot of tannin, and hence it does not appeal to the birds which extract the seed with the pulp from the fruit and reject the coat.