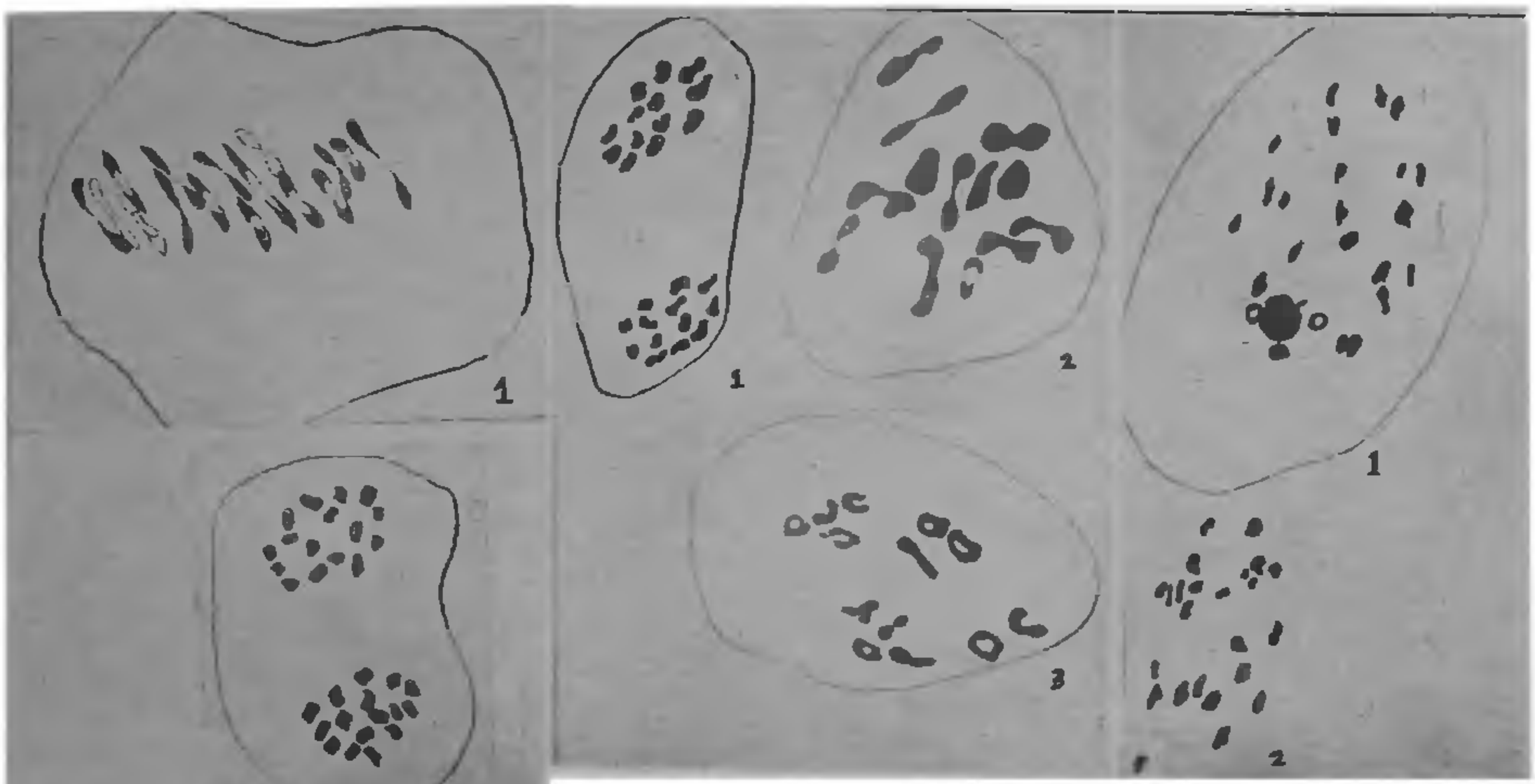

PLATE I PLATE II PLATE III

Plate I

FIGS. 1–2. *Prinsepia utilis*. Fig. 1. Camera lucida drawing showing 16 bivalents at metaphase I, × 1,250. Fig. 2. Camera lucida drawing showing 16 chromosomes at each pole at anaphase 1, × 1,250.

Plate II

FIGS. 1–3. *Deutzia staminea*. Fig. 1. Camera lucida drawing of anaphase I showing 13 chromosomes at each pole, × 1,250. Fig. 2. Metaphase I showing 13 bivalents, × 1,250. Fig. 3. 13 bivalents at late diakinesis the nucleolus has disappeared × 1 250.

Plate III

FIGS. 1–2. *Hypericum cernuum*. Fig. 1. Camera lucida drawing of diakinesis showing 24 bivalents × 1,250. Fig. 2. 24 bivalents at metaphase I, × 1,250

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Punjab (India), *July* 10, 1961.

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SALTATION IN *HELMINTHOSPORIUM ORYZAE* BREDA DE HAAN

MATSUURA (1930) observed that *Helminthosporium oryzæ* salted readily to form white patches at 28° C., saltation being conditioned by temperature and the medium. Chattopadhyay and Das Gupta (1958) observed saltation in several isolates of *H. oryzæ* grown on Richards' agar, Maize meal agar and Oat meal agar.

In the present studies several other media were also tried to see their effect on saltation. The fungus was isolated from diseased paddy plants, raised at the Rice Experimental Area, Sabour, brought into pure culture and grown in the following synthetic and non-synthetic media at 28° C. The pH was adjusted to 6·0. The cultural characters were as follows :—

Brown's Agar Medium.—Colony uniform, circular, margin entire, aerial, fluffy, non-compact, olive-green, spreading, mycelium colourless.

Glucose Peptone Agar Medium.—Colony uniform, circular, margin entire, mycelial growth profuse, compact, uniformly aerial, dark olive green, turning greenish black.

Richard's Agar Medium.—Colony uniform, circular, mycelium colourless, non-aerial, non-compact, olive green, mycelium spreading.

Czapeck's Agar Medium.—Colony uniform, circular, margin entire, slow-growing, non-compact, mycelial strands olive green.

Coon's Agar Medium—Colony uniform, growth scanty, whitish mycelium, cottony, spreading slowly.

Knopp's Agar Medium—Colony uniform, circular, mycelium colourless, non-aerial, non-compact, slow spreading

Potato Dextrose Agar Medium—Colony circular, uniform, margin entire, mycelial growth thick, compact, profuse, dark olive-green, later turning blackish.

Oat Meal Agar Medium.—Colony circular, uniform, margin entire, mycelial growth not compact, olive-green, slow spreading.

Maize Meal Agar Medium.—Colony irregular, growth compact to non-compact, olive green, slow spreading.

Host Extract Agar Medium—Colony circular *not uniform, developing alternate dark and light bands in circular fashion, sectoring common, slow-growing*, olive-green, non-compact.

In Host Extract agar the growth rate and colony characters of the fungus were markedly different from those in other media and fan-shaped sectors developed after 4 to 8 days incubation at 28° C. The sectors were light olivaceous-green in colour and composed of greyish hyphæ without any concentric zonation in the sector area Sporulation was completely absent.

The growth of the saltant was later studied in the following solid media.

Potato Dextrose agar, Oat meal agar, Czapeck's agar, Brown's agar, Coon's agar and Glucose peptone agar.

In Potato Dextrose and Glucose peptone agar, very pronounced sectors developed. In contrast to this, in Brown's and Coon's media the growth was scanty, whitish, non-compact, slow-spreading and the sectors were not prominent In none of the media, zonation developed.

Light had no effect on saltation, as the sectors developed equally well both under light and darkness.

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Sabour, *June* 19, 1961.

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CERCOSPORELLA INDICA SP. NOV.

THE present note describes a new fungus discovered by the author in the course of his study of "The Mycoflora of Muzaffarpur, Bihar".

In the early winter of 1959 *Ipomea* sp. leaves were found affected by a peculiar disease. It was again observed in 1960 and also in the current year. Normally the lower mature leaves are infected but in some even the young leaves at the top are infected.

The fungus appears on the lower surface of the leaves as frosty-white mildew and mainly as small angular areas between the finer veinlets. Due to the abundance of the fruiting hyphæ and the limitations of veins, an areolated appearance is presented.

The pathogen is wholly within the tissue of the host and only the conidiophores emerge through the stomata in bundles of 2–3. The mycelium is intercellular flexuous measuring 95 μ–117 μ The conidia are solitary, terminal, oval—oblong and one septate. As it enlarges it becomes elongated and 2-3-septate. Subsequent production of conidia is sympodial. Conidiaphore puts forth lateral projections and buds out conidia. At a later stage the conidiophore is little zigzag in outline. The size of the conidia varies greatly 28 μ–42 μ.

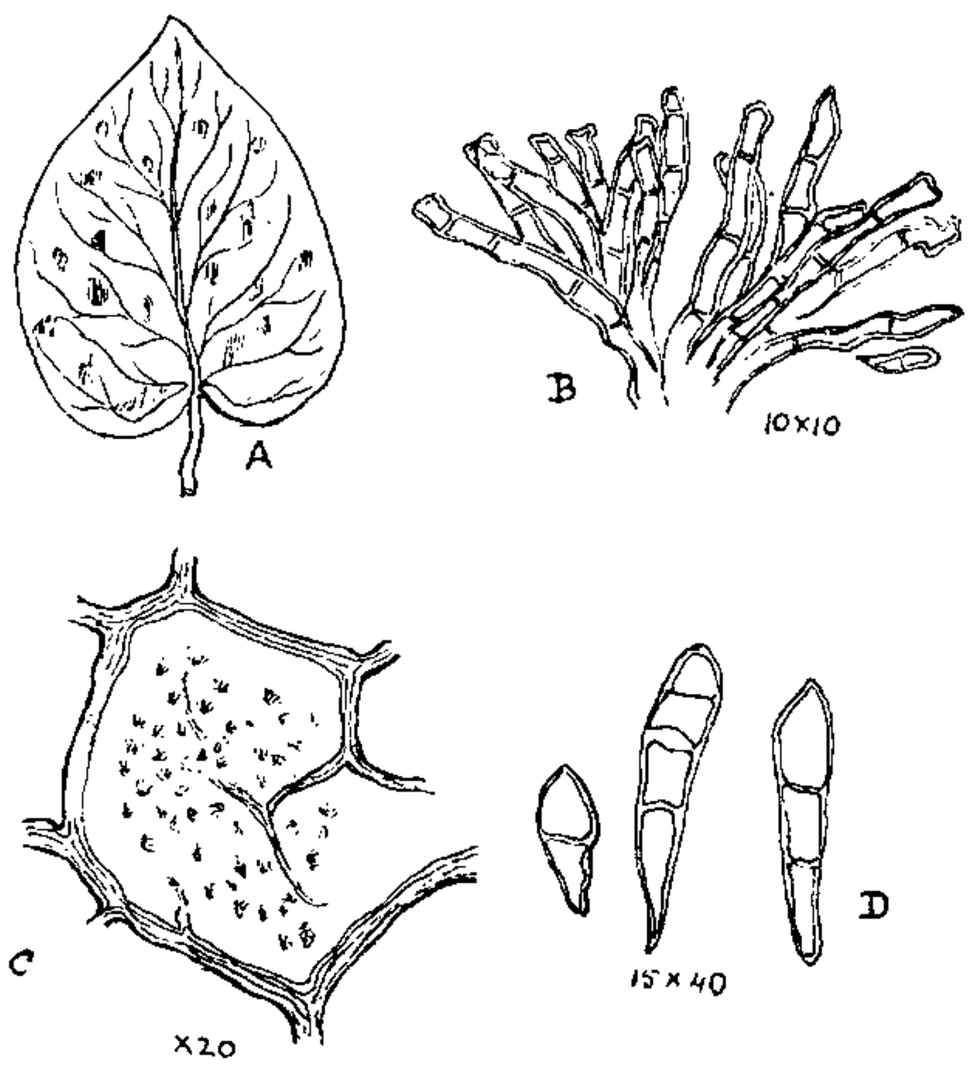

FIG. 1. *Cercosporella indica* sp. nov. A, Infected leaf showing typical symptoms; B, Conidiophores with geniculations; C, Interveinal fruiting-hyphæ; D, Conidia.

LATIN DIAGONOSIS

Cercosporella indica THAKUR SP. NOV.

In pagina inferiore foliorum ut rubigo nivea et paecipue ut maculæ parvæ inter nervos tenuiores. Areolæ apparent ob abundantiam