Both growing and stored corms become infected through even slight wounds but the fungus seems unable to penetrate the uninjured epidermis of corms.

Technical Description: Penicillium gladioli n. sp.

When grown at 20–24° C. on gladiolus corms or on favorable media such as Czapek's solution agar, or potato dextrose agar, the conidiophores are 50 μ to 2 mm. long by 2 to 3.6 μ in diameter; penicillus consisting of the main axis of the conidiophore with or without one or two branches, bearing few metulae 10–12 μ long and verticils of few sterigmata 12 to 14 by 1.5 to 2 μ with tapering rather than acute points, and conidia elliptical-fusiform, smooth, hyaline, 2.8 to 3.6 by 2.5 to 3 μ, adhering in long chains. When grown at 10 to 16° C. the conidiophores tend to be longer and coarser, with walls pitted or roughened, often forming conspicuous tufts, fascicles or complex branching coremia.

The sclerotia are 140 to 540 μ in diameter; cream to light pinkish tan, in age becoming pale brown or tan; smooth and composed of thick-walled cells 8 to 12 μ in diameter; retaining their vitality for several months.

On Czapek's agar the reverse color of the fungus growth is light pinkish cinnamon; drops of pale orange yellow fluid are more or less conspicuous on the mycelium; odor none.

The fungus described above has been identified from corms grown in such widely separated regions as Holland, New Mexico, Canada, Kansas and New York.

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UNDULANT FEVER IN AMERICA

IN 1906 Craig[1] reported the first case of Malta (Undulant) fever originating in the United States. At the close of his paper he states: "(1) The probability of much wider distribution of Malta fever, even in temperate climates, than is generally supposed, and therefore the great importance of applying the serum test in all undetermined cases of fever in all regions. (2) That there are no pathognomonic symptoms of Malta fever. All the symptoms presented may occur in many other infections, and the cases are very few in which a diagnosis can be made without the aid of the serum reaction." The increasing number of cases reported since that time shows that Craig's prediction was correct.

The observation that the causal organism of Malta fever (*Alcaligenes melitensis*) and contagious abortion (*Alcaligenes abortus*) in cattle are closely related in their cultural, biochemic, serologic and pathogenic characteristics was reported by Miss Evans[2] and has been confirmed by numerous investigators. In addition to goats and cattle, hogs and horses are known to harbor the microorganisms.[3]

Of 35 strains studied by Miss Evans[3] 33 were of the abortus or melitensis A varieties. One strain which did not conform to the two common varieties is serologically closely related to paramelitensis of Négre and Raynoud.[4] These authors designated as paramelitensis in their morphologic, cultural and biochemic features, but failed to agglutinate or agglutinated slightly in melitensis serum. Absorption of agglutinins by paramelitensis from melitensis serum was only partial.

The writer has recently isolated a microorganism from the blood of a patient ill with a wave-like type of fever of long duration; with swelling and painful joints and sweats. Blood examination showed secondary anaemia, leucopenia and a marked increase in the percentage of the lymphocytes.

This microorganism was culturally, morphologically and biochemically melitensis, but it agglutinated in melitensis serum in the lower dilutions only, and it did not absorb very much of the agglutinins from the serum. Spontaneous agglutination in salt solution was marked. Perhaps this variety of melitensis is more widely spread than was formerly believed.

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ARE SALT SOLUTIONS MUSICAL?

TESTS in our laboratory with magnesium sulphate, salt, ammonium chloride and sugar convinced us that the change in pitch described by Dr. C. D. Spivak (SCIENCE, October 21, 1927) is due almost entirely to a change in volume of the solution with a consequent change in the length of the resonant column in our closed tube (air column over liquid in tumbler, beaker or graduate). Thus when magnesium sulphate is added to water the first increase in volume is equal to that of the dry magnesium sulphate; but as solution progresses, the volume of solution plus solid diminishes with a corresponding change in pitch. Solids on the bottom of the container produce a deadening of sound. The addition of sand deadened the sound and caused a change in pitch equal to that caused by the addition of an equal volume of water.

I wonder if Dr. Spivak has taken these points into

[1] Craig, Chas. F., *Internat. Clinics*, 15 ser., 4, 115, 1906.

[2] Evans, Alice C., *Jour. Inf. Dis.*, 22, 580, 1918.

[3] Evans, Alice C., *Hygienic Lab. Bull.* no. 143, 1925.

[4] Négre, L. and Raynaud, M., *Compt. rend. Soc. de biol.* Paris, 72, 791, 1912.

consideration? His finding that some salts are non-musical can be explained in this manner. If the length of the resonant column is long, the addition of salt or solid to the liquid below will cause only a relatively small change in the length of the resonant column. If, on the other hand, it is short to begin with, and has its length decreased by one half, a change of one octave will occur.

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BANANA STOWAWAYS

SOME time ago a couple of strange "mice" with prehensile tails, were brought to the laboratory from a neighboring grocery store. They proved to be Marsupials from some one of the Central American States, and belong to the genus Marmosa sp. A visit to the store resulted in the discovery of three more of this marsupial family making five in the single bunch of bananas. They were fed on grasshoppers and bananas and lived until the cold weather came on, when proper food could be secured no longer.

Many animals are imported in banana bunches and many insects, snakes and rats have been collected in the fruit commission houses, but this is the first time in the writer's knowledge that Marsupials of this genus have been included in the list of stowaways.

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ON THE VELOCITY OF SOUND

IN an article entitled as above and published on page 381 of SCIENCE for October 21, 1927, an error was made in the value of a constant in the last line of the article. This line should read

$$V = 331.4 \left(1 - \frac{4.45 \times 10^{-3}}{d\, n^{.53}}\right) \frac{\text{meters}}{\text{sec}}$$

P. I. WOLD

GEO. R. STIBITZ

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SCIENTIFIC BOOKS

Navigator. The Story of Nathaniel Bowditch. By ALFRED STANFORD. New York: William Morrow & Co. pp. 308. $2.50.

IT is only an occasional book in the field of general literature that threads its story about the life of a scientific man. When such a contribution comes from the press it is a pleasing diversion from the technical aspects of one's subject and even from the more conventional types of scientific biography. Such a book is "Navigator" by Alfred Stanford, a recent Amherst graduate.

To one who is interested in things of the sea and the nautical aspects of a brilliant career this novelized sketch of the earlier days of Nathaniel Bowditch, of Salem, will prove a pleasing book.

It is more than a narrative of events in the life of a singular man. It is a book that wrests from the obscurity of eighteenth century science, a reticent but extraordinary personality.

To all who "go down to the sea" in ships, the name Bowditch is tantamount to Hoyle and "The American Practical Navigator" originally by Nathanial Bowditch is the recognized American epitome on navigation which has for so long been printed and reprinted by the Hydrographic Office that the number of its editions is now almost legion. If the aim of Mr. Stanford's book had been to show how and why this celebrated epitome of navigation came to be written, he could not have more strikingly portrayed his character, but his aim has been more than this. It is obvious that the author has solicited a wider circle of readers than mathematicians and astronomers by making human his unique character and detailing his varied experiences rather than his mathematical contributions.

Those who knew Bowditch more seriously through the authentic memoirs or the traditions of Salem's nobility, may find not altogether pleasing the intimacies of imagined conversations or descriptions of conjectured conduct, yet it is surprising and indeed gratifying, to find how consistent with fact is the main artery of events in this kaleidoscopic picture.

So far as the problems of the eighteenth century are concerned, Stanford has shown himself well informed. A scientific mind cringes a bit at the indiscriminate use of "straight line" for a "great circle" course to shorten sailing distances and the spelling of Laplace's celebrated work as "Mechanique Céleste." One might moreover gain the impression that a ship's position could be determined from lunar observations with a far greater degree of accuracy than was ever achieved in practice.

On the other hand, one should not minimize Bowditch's notable contribution to "lunars" in a day when chronometers were scarce and often wanting entirely in a ship's navigating equipment. While the author may have played up (or down) to romance with all allowable license in a book purportingly founded on fact, he has not obscured the Salem lad's love of figures as the *motif* of his career, nor has he failed to make mention of the high honors gained by his mathematical and astronomical attainments.

The final chapter is indeed a dramatic ending, and the more captivating for the knowledge that it is substantially according to fact. Rumor states that Captain Bowditch gained one glimpse of shore or of a familiar coastal light that piloted his landfall on the