tration of chemical, and recording percentage germination after incubation for 24 hr at 21° C. The test fungi used were *Monilinia fructicola* (Wint.) Honey and *Alternaria circinans* (Berk. and Curt.) Bolle.

Data obtained in this way are presented in Table 1. It may be seen that in the case of the 2-substituted-4,4,6-trimethyltetrahydropyrimidines the fungistatic effectiveness was strongly dependent upon the nature of the substituent in the 2-position. When this substituent was an *n*-alkyl group, a maximum toxicity to fungus spores was reached at an alkyl chain length of approximately 17 carbon atoms, beyond which fungitoxicity decreased. In this respect these homologs resemble the glyoxalidines (*2*). It may also be seen that those compounds tested having other substituents in the 2-position were less fungitoxic than the *n*-alkyl homologs. The three methyl groups on the ring enhanced the effectiveness of these compounds, as shown by the fact that 2-heptadecyl-4,4,6-trimethyltetrahydropyrimidine was markedly more fungitoxic than 2-heptadecyltetrahydropyrimidine.

Greenhouse tests with these 2-alkyl-4,4,6-trimethyltetrahydropyrimidine homologs have shown that phytotoxicity is at a minimum with the compound containing the 2-heptadecyl group. Late blight of tomatoes [*Phytophthora infestans* (Mont.) deBy.] was controlled in the greenhouse with a spray containing approximately 1.5 oz of this compound/100 gal spray/acre, and phytotoxicity was noted at approximately 6 oz/100 gal spray/acre. Late blight of celery (*Septoria apii-graveolentis* Dorog.) was controlled at 6 oz/100 gal spray, and no injury was noted. No control was obtained on powdery mildew of beans (*Erysiphe polygoni* D. C.), and only moderate control of rust on beans [*Uromyces appendiculatus* (Pers.) Lev.].

Only preliminary field assessment of the efficacy of these compounds has been made. However, successive sprayings in field plots on tomatoes and potatoes have shown that with some formulations there can be an accumulative effect of the tetrahydropyrimidines with injury appearing after 4–6 applications. Phytotoxic response is noted in the form of bronzing and necrosis of the leaves or, in mild cases on potatoes, a rugosity of the foliage.

On the basis of preliminary laboratory and greenhouse tests, it would appear that the alkyltetrahydropyrimidines possess high fungistatic value and merit further testing as foliage fungicides.

References

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Comments and Communications

Preparing Lantern Slides

THE filing system used by Ciba Pharmaceutical Products, Inc. (SCIENCE, **114**, 308 [1951]), is almost identical with that used for filing lantern slides by the Illinois Geological Survey in its handling of geological subjects. When a slide is turned in for filing, it is given a serial number. Several 4″ × 6″ cards are made for each slide for cross-reference purposes. On the left side of each of the cards is mounted a photographic print of the slide, made from the slide negative. The title is typed at the side of the print. Each card receives a subject classification, which is typed across the top of the card; the cards are then filed alphabetically according to the subject classification.

On cards in a separate part of the subject index we have recorded numbers of slides used by staff members to illustrate papers or addresses they have given. These contain title of the paper, date and place of presentation, and numbers of the slides used. One copy is filed with the manuscript.

Several years ago, before converting to the system now in use, we often found it difficult to locate promptly a particular slide because it may have been filed in any one of several major subject classifications. For instance, a slide of a geologic map of Illinois, which also showed locations of coal mines and principal shipping routes, might have been found under "Coal," "Geologic Maps," or "Economics." This situation is not serious in a small collection, when it takes only a few minutes to pick up all the slides filed in several categories and look at them individually. When, however, it means looking at several hundred slides, it is another matter.

An additional advantage of the system now in use is that our 3400 slides and index occupy only 3 sq ft of floor space, much less than was previously needed when viewing racks were used.

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THE preparation of lantern slides is often an arduous and expensive task. For many purposes where clarity alone is essential, it is satisfactory to present the data directly on a glass slide without the use of a photographic procedure. This requires a prior treatment of the glass surface with a bonding material that can be easily marked with pen and ink. A solution of gum damar in xylene has been found quite effective as a bonding material. Glass lantern slide plates are first cleaned and dried thoroughly. A 0.5% solution of gum damar in xylene is either sprayed on the slide by a hand atomizer, or brushed on, and the slide is dried in a vertical position. Printing or tracing the desired information is then easily done on the roughened absorbent surface with pen and ink. India or other colored inks can be used with equal effect. When dry, the surface is again covered with the gum solution, preferably by means of the atomizer, and allowed to dry. It is then a permanent record which can, however, be added to directly or altered, simply by scratching out an unwanted area and starting again. When the slides are of no further use they can be easily cleaned with xylene and re-used.

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A Slide-Projector in the Lecture Desk

A LANTERN slide projector that can be operated on the lecture desk by the lecturer himself has been on the market for many years. Laboratory furniture manufacturers, however, have not listed in their catalogues lecture desks into which such projectors will conveniently disappear for storage when they are not needed, and upon which they can easily be made to appear when wanted.

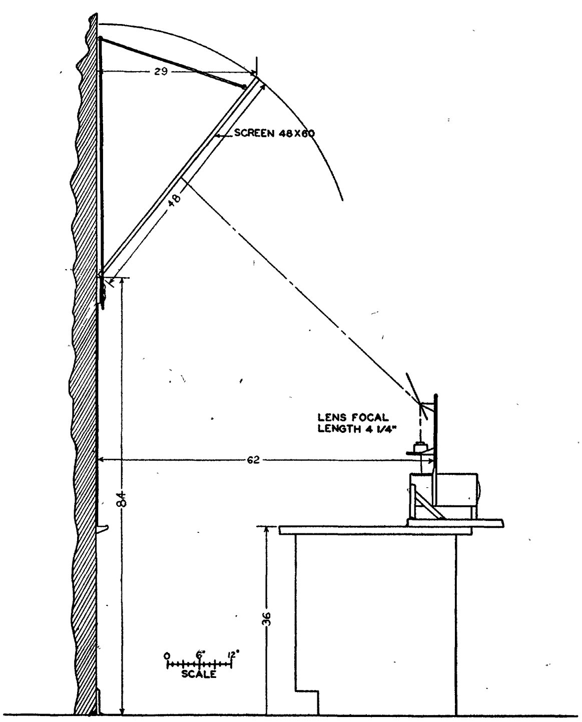

FIG. 1. Convenient locations of projector and screen for the lecture room.

A standard projector can be mounted in a lecture desk so that it can be made to disappear and leave the top of the desk completely flat and free of all obstructions.

In Fig. 1 are shown relative locations of projector

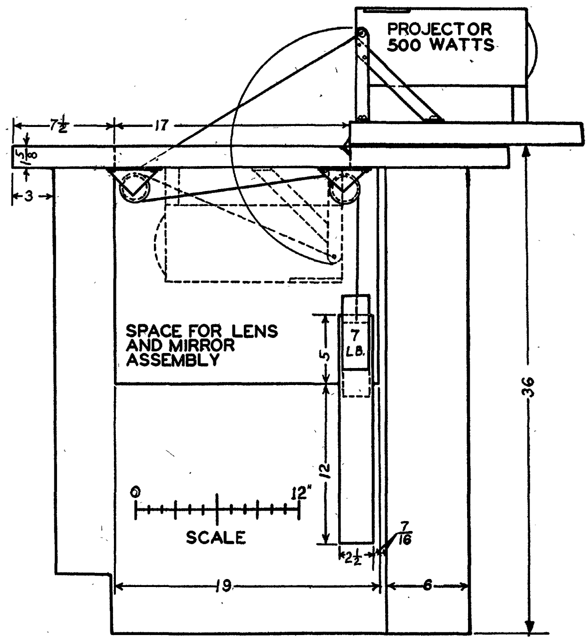

FIG. 2. Side view of projector well and counterpoise assembly.

and screen. The projector, screwed to the underside of the trap door, is shown in its operating position with the lens and mirror assembly in place. The screen, 48″ × 60″, is made of ¾″ five-ply board painted a flat white. It is mounted with three 2″ × 2″ butts on the top of the casing above the blackboard. A braided

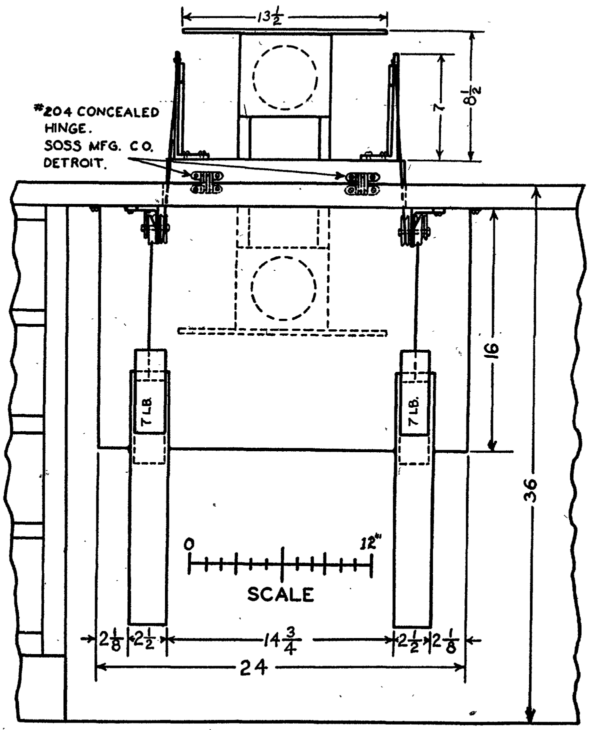

FIG. 3. Rear view of projector well and counterpoise assembly.