

and Public Health of the Johns Hopkins University, Baltimore. He said:

"The selection of Prof. Otto Warburg for the Nobel Prize in medicine and physiology for 1931 will be cordially approved by American physiologists. He is well known and esteemed in this country for his fine work upon cell metabolism.

"His investigations upon the respiration or mechanism of oxidation in the living cell are of fundamental importance. He has shown that the cell depends upon the iron contained in it to utilize the oxygen that is brought to it by the blood. The iron exists in the cell in a special form, an iron porphyrin compound, which is present in very minute concentration, perhaps one part to a million, but it is very active and functions as a catalyst or ferment which takes up the oxygen and then gives it to oxidizable substances within the cell. In such small amounts its nature could not be detected by ordinary chemical means and Prof. Warburg devised a delicate spectrographic method depending upon the absorption bands given by its compound with carbon monoxide.

"Another significant contribution was his study of the metabolism of the cancer cell as compared with the normal cell. He was able to show that malignant growths have a small respiration but contain relatively large amounts of lactic acid. His work figures largely in all discussions upon the cause of cancer."

Science News Letter, November 7, 1931

PUBLIC HEALTH

Millions Wasted Yearly For School Ventilation

MORE THAN \$2,500,000 is being wasted annually by many cities throughout the country on unnecessary and even hazardous ventilating systems for schools, Dr. C.-E. A. Winslow, professor of public health at Yale University, estimated in a report published by the New York Commission on Ventilation, of which Dr. Winslow is chairman.

Twenty states in the Union still have laws or other regulations concerning ventilating devices which are based on disproved or antiquated theories, the Commission found, although scientific knowledge concerning the proper ventilation of buildings has been in the possession of architects, hygienists and engineers for more than twenty-five years.

For example, these twenty states re-

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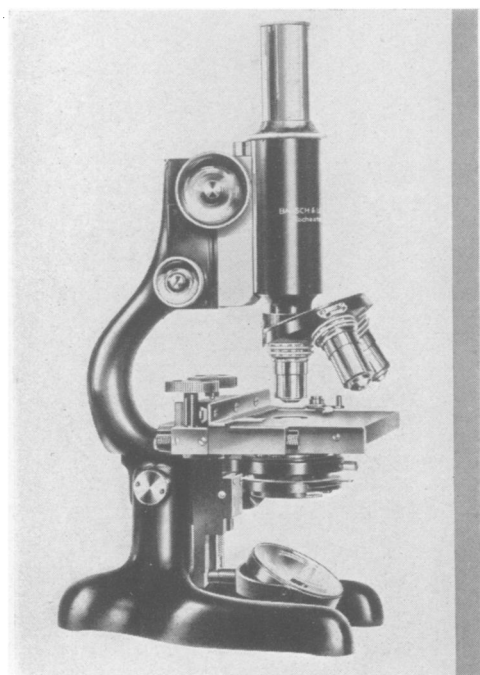
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quire that there be an air supply of thirty cubic feet per minute per person, a condition which can only be obtained by mechanical ventilation involving the use of fans. This system is not only costly but may in some circumstances be a menace to health, the Commission reported, since it tends to produce drafts and overheating.

The evidence gathered during the investigation all showed unmistakably that the window-gravity method of ventilation, in the absence of specific unfavorable conditions, is generally more satisfactory than the fan system because it maintains more uniform temperature, humidity and air movement.

Among other things the Commission recommended maintenance of a room temperature of 65 degrees Fahrenheit in corridors, gymnasiums and shops; of 75 degrees in swimming pools and adjacent dressing rooms; and of 68 degrees in all other occupied rooms.

"The avoidance of overheating is of primary importance for the promotion of comfort and efficiency and the maintenance of resistance against disease," the report stated.

"All classrooms shall have at least fifteen square feet of floor space and two hundred cubic feet of air space per pupil," was another recommendation for a model ventilation law.

Science News Letter, November 7, 1931

PATENTS

Plant Patents Necessitate Use of Color Printing

THE monotony of the black and white of the U. S. Patent Office files is now to be enlivened by bright colors. Plant patents, recently authorized by act of Congress, will be issued in full color whenever the color is a part of the "invention" claimed by the horticulturist who has produced the new variety of plant.

The two colored patents issued so far are for a white carnation with a delicate touch of yellow, and for a rose of deep pink.

The necessity for putting out patents in color has set a new problem for the Patent Office officials, for color has never previously been required for any type of patent. Despite the great additional expense for printing, the office is not allowed by law to charge any more for copies of the patents, so it is planned to limit the sale of them to those who can show that they have real need for them.

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