earliest stages and subsequent transformation." "The equivalence of hematopoietic anlages" is, as may be read in the article, a reference to hematopoietic centers. This paper states that the endothelial cell is "a hematopoietic anlage," that is, a *source* of blood corpuscles. That it does not give rise to blood-cells (is not such an anlage) is the converse of this proposition, as recently expressed in the *British Journal*. All organs in young embryos instead of being called hearts, stomachs, etc., may be called anlages of the same, giving abundant opportunity to employ the word, and necessitating references to "early anlages." In numberless cases it is used in place of a more exact term, *e. g.*, anlage of the liver, for hepatic diverticulum, or is introduced redundantly, as "the evagination which forms (the anlage of) the arm." Its entire absence from many of the most technical and best expressed embryological papers shows clearly that it is not needed. Is the English language enriched by it? It certainly could be employed in general literature:

> Tall oaks from little anlages grow,
> Large streams from little anlages flow.

The child is anlage of the man; and Lowell might exclaim, Puritanism—the anlage of democracy!

But in the interest of scientific accuracy and purer English it should be deleted. The term, if it remains, will mark the period of German dominance in American embryology.

Frederic T. Lewis

## A SIMPLE COVERING DEVICE FOR THE OCULAR OF THE MICROSCOPE

To the Editor of Science: I have experienced so much trouble and expense from the injury to eye-glasses by contact with the ocular of the microscope, that I venture to describe my experience in solving the problem in the hope that it may be of interest to others similarly annoyed. Not being able to use the microscope without the correction to vision afforded by the eye lenses, I found for a number of years that the harder glass in the ocular invariably—in the course of six months or a year—covered the eye lenses with a maze of minute scratches and abrasions, rendering them unfit for further use and necessitating a very considerable expense in the purchase of new lenses, to say nothing of the lowered efficiency of the damaged glasses in the interim.

I first secured from one of the leading optical companies a pair of heavy rubber caps such as are used by them as a dust cap to protect oculars in storage. By cutting away a circular opening in the center of the cap (do not make it too large) I found the rim of rubber kept the two sets of lenses from coming in contact. These caps can readily be shifted from one ocular to another as occasion demands, or the cost is so slight that several sets can be afforded. They are, however, rather cumbersome and force the eye away from the lens perhaps an eighth of an inch, which is not always satisfactory.

A much simpler and, on the whole, more satisfactory device may be made by taking a circular piece of ordinary sheet rubber (such as dentists use extensively) about an inch and a half in diameter; cutting a small hole at the center, and stretching and tying it securely with fine thread below the knurled cap of the ocular. This allows the eye to approach very closely to the ocular; and, besides thoroughly safeguarding the eye-glasses from injury, it does away with the very annoying noise caused by the constant shifting of the two glass lenses on each other.

I now have every ocular covered in this way and shall never again be without the comfort and economy so afforded.

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## CURIOUS DIFFERENTIATION IN FROST EFFECTS

To the Editor of Science: A curious differentiation in frost effects on foliage came under the writer's observation yesterday. On Friday morning, November 1, a self-recording standard thermometer registered 32 degrees F. as the minimum during the preceding night, followed by a record of 31 degrees the follow-

ing morning. Such temperature usually produce immediate and decided effects on vegetation, assuming the character of "killing frosts."

On the following Sunday morning the writer made a run on the road leading out of Clarksdale, which for three miles traverses ground near to what was the bank of the Mississippi River before a "cut-off" several centuries ago converted this part of the river channel into a lake. The road then turns from the old river bank and traverses fields in the interior.

There is a luxuriant growth of cotton along the road for many miles, and that which is on the ground in the vicinity of the former bank of the river is green and vigorous in appearance, showing no effects of frost; while all the foliage on the cotton in the fields remote from the river bank was completely killed.

The thermometer that recorded the above temperature is located near the old river bank, and at the same elevation as the growth of cotton stalks referred to.

The writer is unable to imagine an agency that could produce the results above recited, except a difference in the character of the soil in which the cotton grows.

The soil near the old river bank is composed of river silt mainly, while that of the interior fields is a heavy, dark clay, locally called "buck shot."

The assumption is that the silty soil possesses the property of storing the sun heat during the day, and that this stored heat given out during the night protected the cotton from the frost temperature; and that the clay soil does not possess this property in the same degree.

The frost temperatures above noted came rather suddenly, without preceding low temperatures to deprive the soil of previously stored heat.

It should have been stated that the "old river channel" above referred to is not now a body of water, but by gradual filling has become arable land. Also that this is a level country.

T. G. DABNEY

## QUOTATIONS

### HOW TO AVOID INFLUENZA

ALTHOUGH man has lived in houses of one kind or another for several thousand years, and in western Europe since the introduction, somewhere in the fifteenth century, of glass for domestic windows, in houses which can be almost hermetically sealed, yet a human strain capable of withstanding the evil influences of unventilated rooms has not so far been evolved. Our ancestors of a few centuries ago immured themselves in tightly-closed houses, slept in bedrooms with windows closed, sometimes even in cupboards or box beds with shut doors. The result was reflected in their mortality, in the prevalence of the plague and other plagues, and in their short average span of life. Though we are wiser than they, and pay lip service to the virtues of fresh air, and talk much and learnedly on ventilation, the severity of the present pandemic of influenza is enough to show that we need to grow wiser. Dr. Leonard Hill, who has done perhaps more than any one else to give a scientific explanation of the air conditions of health, makes another contribution to our pages this week in which he relates some interesting experiments on himself and other volunteers. They lead him to urge as the best means of combating the infection of influenza, the deep breathing of cool air brought about by exercise, and by sleeping in the open air—this last perhaps a counsel of perfection. The advice applies not only to influenza itself, but to the colds and catarrhs which, in the aggregate, are responsible for so much discomfort and loss of efficiency. A striking illustration has been related to us by Colonel C. T. C. de Crespigny, D.S.O., A.A.M.C. During August, 1918, a transport left Australia bound for Great Britain. The 1,200 troops which she carried were accommodated in four troop decks of about equal capacity. Three decks were well ventilated with windsails, but the fourth deck was in this respect very unsatisfactory. Early in the voyage a form of infective pharyngitis and epidemic catarrh broke out among the troops. The incidence of the infection was ten times greater among the men occupying the