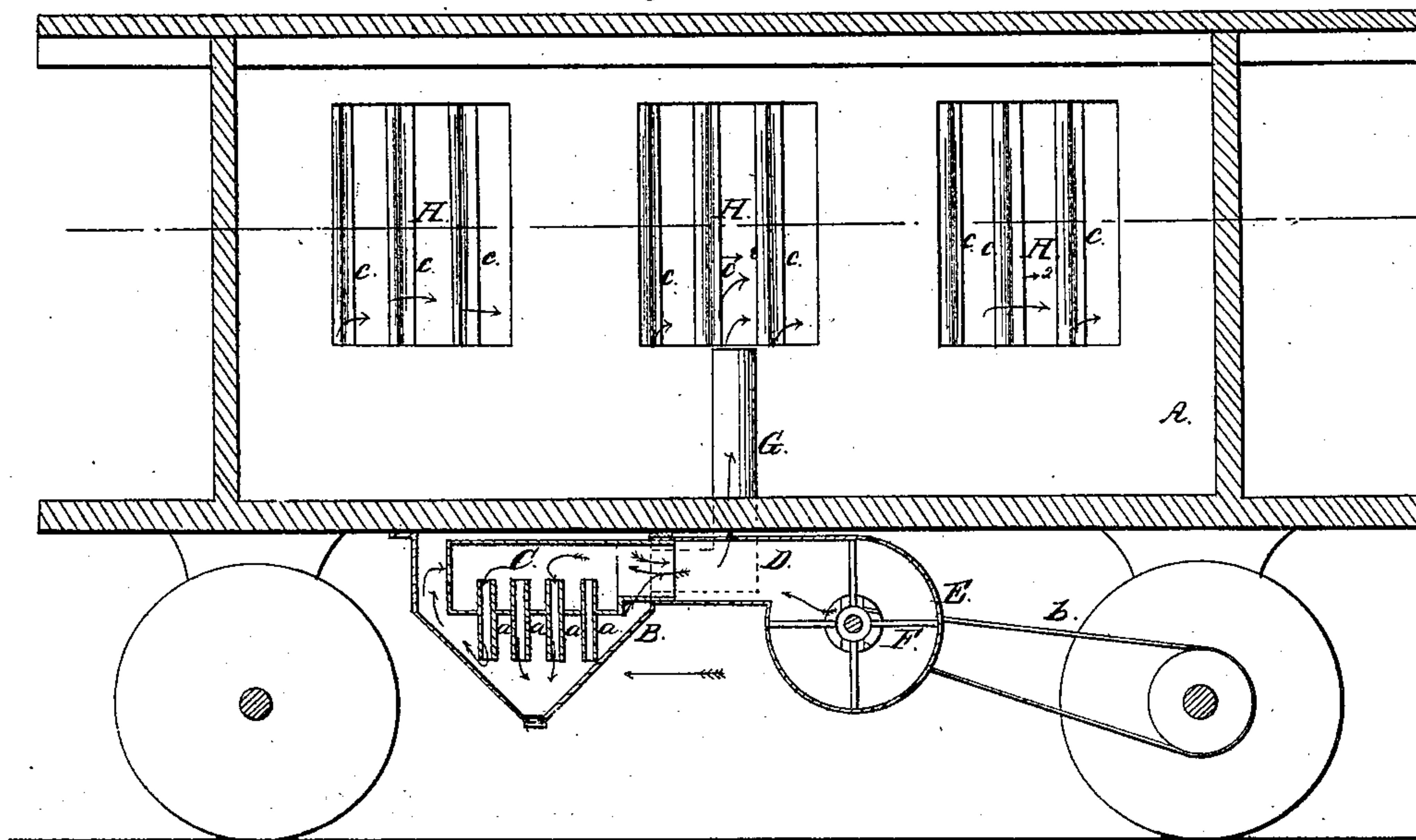


*J. K. Taylor,  
Car Ventilator,*

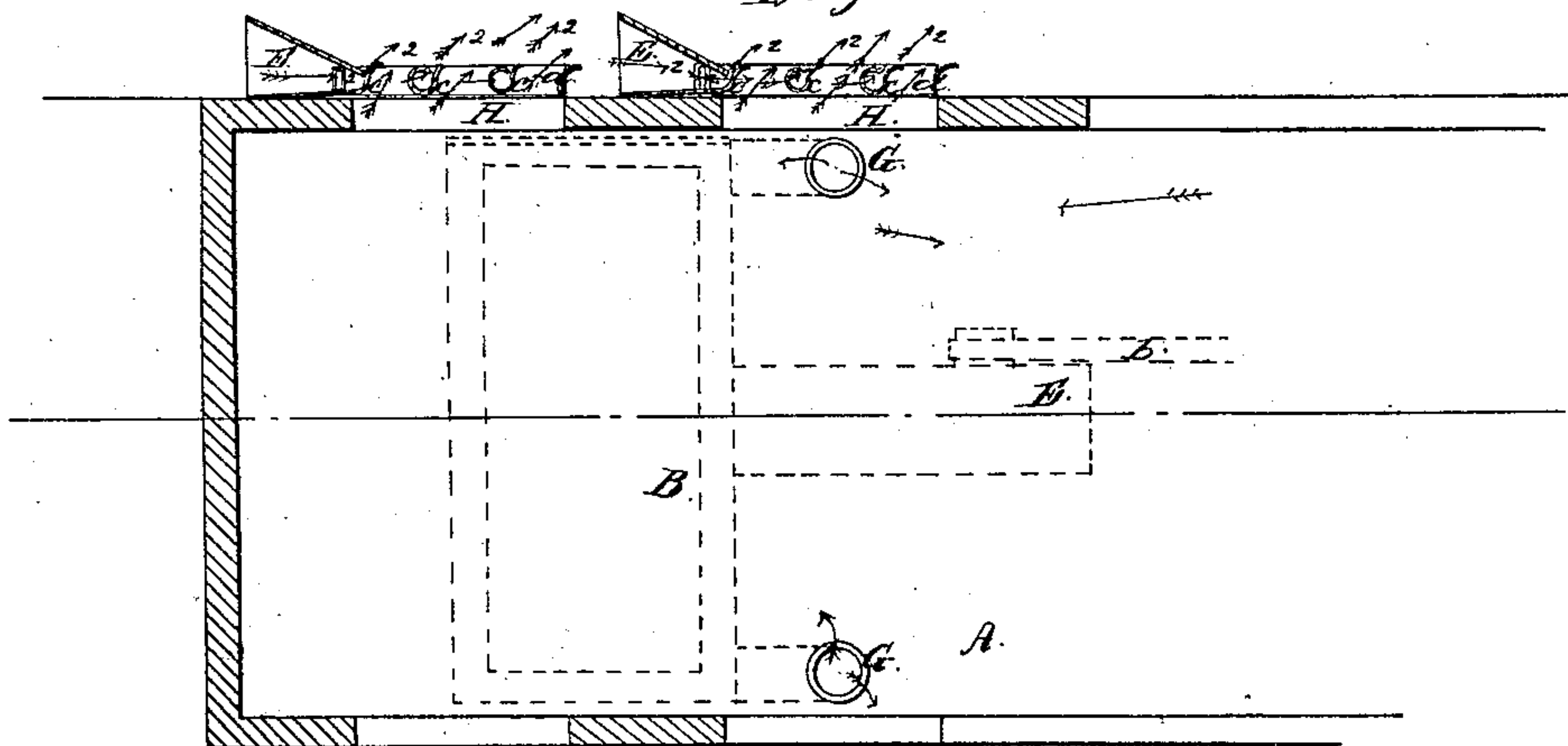
*No. 13,732,*

*Patented Oct. 30, 1855.*

*Fig. 1*



*Fig. 2*



# UNITED STATES PATENT OFFICE.

J. K. TAYLOR, OF BINGHAMTON, NEW YORK.

## METHOD OF VENTILATING RAILROAD-CARS.

Specification of Letters Patent No. 13,732, dated October 30, 1855.

*To all whom it may concern:*

Be it known that I, J. K. TAYLOR, of Binghamton, in the county of Broome and State of New York, have invented a new and Improved Mode of Ventilating Railroad-Cars and Excluding Dust, Cinders, &c., Therefrom; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a longitudinal vertical section of a rail road car, with my improvement applied to it. The plane of section passes through the center of the car. Fig. 2, is a horizontal section of ditto, the plane of section passing through the center of the car.

Similar letters of reference indicate corresponding parts in the two figures.

My invention consists in the employment or use of vertical slotted tubes placed at the outer sides of the windows of the car and arranged as will be presently shown and described and having a current of air forced through them to prevent the admission of dust through the windows and also to create a current of air from the interior of the car out through the windows.

To enable others skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A, represents a rail road car, and B, represents a water box or chamber attached to the underside of the car. Within the box or chamber B, there is placed an air box C, the underside of which has tubes *a*, attached to it, the lower ends of which pass below the surface of the water in the water box B. The air box C, communicates with a spout D, which is connected to a fan box E; F, is the fan placed within the box E, the fan is driven by a belt *b*, from one of the axles, see Fig. 1.

G, G, are pipes which communicate with the upper part of the water box B, and pass upward through the bottom of the car A.

H, represents the windows of the car. To the outer sides of the windows of the car, there are secured vertical tubes (*c*) the up-

per and lower ends of which communicate with horizontal tubes (*d*). These tubes are slotted longitudinally, their extreme length and the edges of the tubes adjoining the slots are curved as shown in Fig. 2. The outer tube (*d*) of each window is provided with a flaring projection (*e*) as shown in Fig. 2.

Suppose the car to be going in the direction indicated by the arrows 1. The fan F, as it rotates will force air into the air box C, and through the tubes (*a*) into the water in the box B. The air is deprived of all dust, cinders, etc., in passing through the water and enters the car through the pipes G, G. As the car moves along air enters the flaring projections (*e*) and passes out of the slotted tubes (*c*) in thin sheets, as indicated by the black arrows 2. These thin sheets of air prevent dust from entering the car through the windows H, and also serve to draw the air in or aid in drawing it out from within the car through the windows and thereby cause in connection with the boxes B, C, and fan F, a current of pure air to circulate through the car.

The tubes (*c*) may be changed in position or placed against the windows in an opposite position to that represented, when the car is moving in an opposite direction.

The above invention is extremely simple and will operate effectively, and the improvement may be applied to cars at a trifling cost.

I do not claim separately forcing air through water before it enters the cars, in order to purify it or cleanse it from dust, cinders, etc., for this has been done in various ways, but

What I claim as new and desire to secure by Letters Patent, is—

The vertical slotted tubes (*c*) placed at the outer sides of the windows H, of the car and having air forced through them by the means herein described, or in any other manner for the purpose specified.

J. K. TAYLOR.

Witnesses:

B. N. LOOMIS,  
THOS. YOUNG.