FIG. 3.—Installation of dial and light on instrument panel.

We are thoroughly convinced that, according to our records of comparison, we have been consistently accurate in computing the amount of toxicant per acre being fogged by our test truck. We plan on installing the slow speed speedometer on all of our fogging trucks for next season. However, we have plans to relocate the microswitch from the wheel arm adjacent to the truck wheel to a point beneath the instrument panel in the truck cab.

CHIRONOMIDS AS POSSIBLE CARRIERS OF COLIFORM BACTERIA

R. S. PATTERSON,[1] T. A. CARDINALE [2] AND B. B. GLENN

Regional Environmental Laboratory, Florida State Board of Health, Winter Haven, Florida

Recently a 125-acre lake in central Florida became polluted, purportedly from overflowing septic tanks. Estimation of the coliform group density (M. P. N. index per 100 ml.) ranged as high as 2,000. The water was declared unsafe and restrictions were placed on swimming, fishing, or boating in the lake, until the coliform group density had dropped again to the safe limits of less than 100. People living in the vicinity of this polluted lake were concerned that the numerous chironomid midges, primarily *Glyptotendipes paripes* Edwards, which were emerging nightly from this lake, might be capable of carrying the coliform bacteria. Steinhaus and Brinley (1957) reported that chironomids emerging from sewage ponds would contaminate agar plates with bacteria when they walked on them and therefore could be a potential health hazard.

Adult *G. paripes* were collected from the sides of the lake front homes. A standard membrane filter test for the presence of the coliform group was run on these insects immersed in distilled water. This technique is described in the 1955 edition of the "Standard Methods for the Examination of Water."

The results from these tests were negative; thus the adults of *G. paripes,* which emerged from a polluted lake, were not found to be carriers of coliform bacteria on the surfaces of their body. Unfortunately, the meconia of the midges were not checked. Water samples taken from this lake at the same time the chironomids were collected, were also run using the same test. The water samples had an average coliform density of 2000.

According to Nielsen (1962), the peak of *G. paripes* emergence normally takes place within 2 hours after sunset, consequently the midges which are most troublesome to the homeowners the following morning are 8 to 10 hours old. Nielsen also states that only the females, 24 hours old and having already laid their eggs, are positively phototropic and will therefore invade homes in the evening seeking the light. Since *Escherichia coli* is very sensitive to desiccation and these insects were 8 hours old, it is doubtful that *G. paripes* would be much of a health hazard as a mechanical carrier of coliform bacteria.

References Cited

American Public Health Association. 1955. Standard Methods for the Examination of Water, Sewage, and Industrial Wastes. 10th ed. APHA, New York. 522 pp.

NEILSEN, ERIK TETENS. 1962. Contributions to the ethology of *Glytotendipes (Phytotendipes) paripes* Edwards. Oikos 13(1):48–75.

STEINHAUS, EDWARD A., and BRINLEY, FLOYD J. 1957. Some relationships between bacteria and certain sewage-inhabiting insects. Mosq. News 17(4):299–302.

[1] Present address: U.S.D.A. Laboratory, Entomology Research Division, P.O. Box 1268, Gainesville, Florida 32601.

[2] Present address: Hillsborough County Health Department, P.O. Box 1731, Tampa, Florida 33601.