

# BURNING TEPEE

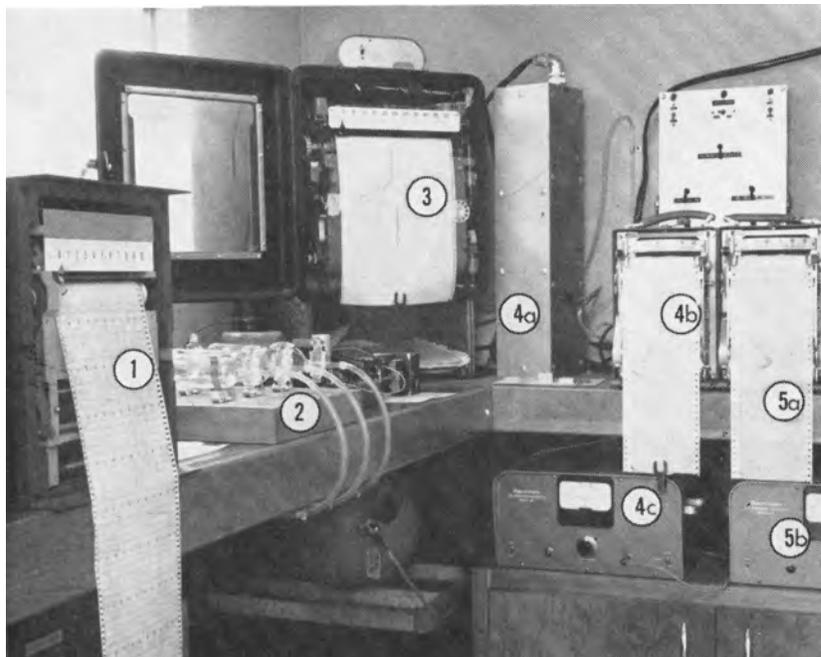
*aids air pollution*

*studies at*

*Riverside*



Burning tower and laboratory, to right, with technician checking scales as fuel is burned and another technician, on ladder, checking a velometer, mounted outside the upper stack, which records air flow as transmitted electronically from an anemometer mounted inside.



Interior of laboratory adjoining the burning tower showing some of the instruments for analyzing the gases: 1. Recorder connected to total hydrocarbon analyzer (not shown) using hydrogen flame detection; 2. Gas bottles with samples from fuels burned are taken to gas chromatographs for analysis of individual hydrocarbons and oxygenates; 3. Temperature recorder is connected to instruments at the gas sample site; 4. Detector (a), recorder (b) and amplifier (c) for infrared carbon dioxide analysis; 5. Recorder (a), amplifier (b), for infrared carbon monoxide analysis (detector adjoining is not shown).

Close-up photo of burning platform at the base of the tepee showing fuel burning and scales to left to accurately measure samples.



**T**HE stainless steel "tepee" pictured here and on the cover is being used at the University of California Air Pollution Research Center to aid studies of agriculture's contribution to the smog problem. The unique cone-shaped structure was designed to burn assorted farm wastes. Fuels such as barley straw, fruit tree prunings and range brush are stacked on a platform at the tepee's base, which is 16 feet in diameter. The fuel is weighed and then burned. As smoke and fumes rise 20 feet to the neck of the cone, instruments in the adjoining laboratory record air velocity and analyze gas samples. This installation was built by a research team headed by Ellis Darley, plant pathologist at Riverside. Laboratory technicians Irvin Mateer, Frank Bureson and Max Ahlstrom assisted with the installation and operation of the burning tower.