

THE ANSWER TO 'WHO WON?'

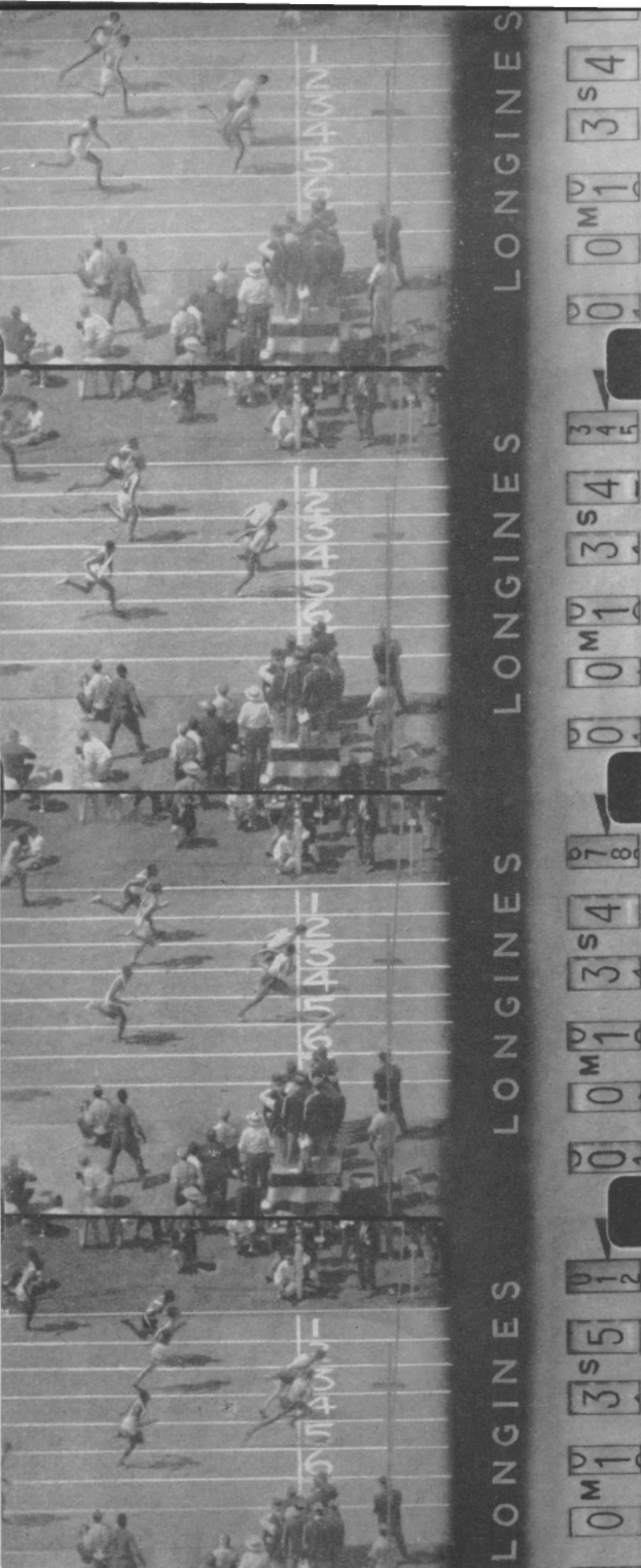
At the Millrose Games a new photographic device is expected to take the guesswork out of racing

AT THE MILLROSE GAMES in Madison Square Garden Saturday night spectators will note a substantial difference in the quality of illumination filtering through the cigar smoke in that crowded, cluttered hall. The lights will be turned up as high as the Garden's staff can swell them, and there also will be a 5,000-watt lamp at the finish line. It will shine with enough brilliance either to blind or to open the eyes of the race-end judges, a group of men not known in the track world for their infallible vision (see "Who Won?", *SI*, Feb. 4). Actually, the extra wattage is not for the benefit of the judges, but to permit operation of a device which its maker, the Longines-Wittnauer Watch Co., maintains will settle, once and for all, the question of which man won the race. This device is the Longines Cinetimer. The Millrose marks its first use at an indoor track event, and the elaborate and costly mechanism (at present there is only one in the U.S.) has to have sufficient light to take photographs at 100 frames per second to be of maximum use to the officials. At only 25 frames, the Cinetimer might show the exact finish, as in the strip at the left, but it also conceivably could catch the runners a foot before and a foot after the finish. At 100 frames this danger is negligible.

The Cinetimer not only photographs the end of the race, but its film also shows the face of a quartz clock, activated electronically by the trigger of the starter's pistol. Although this watch has kept absolute precision time in a 24-hour observatory test, its timing will not be counted as official; the timers with their stop watches will still arbitrate that question.

Arbitration usually is required. For example, at an event in California last year three timers got three different results, all several 10ths of a second apart. Instead of averaging these discrepancies, they took the lowest time because it gave the track a new record. At another California meet a different group of timers started their watches by the sound of the pistol rather than the visible flash and clocked a speed .4 second faster than the Cinetimer. Sometimes (left) the timers' verdict has been slower than the machine.

Even though its timer is disregarded, Cinetimer film strips will decide beyond question the precise order of finish of every contestant in the sprint events—and that is a major advance. The camera is a 16-mm Bolex, which can be synchronized to run 25, 50 or 100 frames per second. It furnishes a strip of film that can be processed for viewing within 65 seconds. At present, it takes four technicians and half a dozen assistants to operate the Cinetimer and costs the Longines company about \$250 for each event—a gesture on the part of the company that presumably will pay off if and when track officials and fans rebel against the present imprecise methods. **END**



DEAD-HEAT FINISH of the U.S. Olympic trials 110-meter high-hurdle final last June at Los Angeles between Lee Calhoun and Jack Davis is clearly shown by Cinetimer. In this race Cinetimer clocked the two winners in 13.5 seconds. The official timers, after the customary conference, arrived at a verdict of 13.8.