all is ready in the control room for firing the shot, a solenoid is energized from the control room pulling the solenoid arm free of the trap door allowing it to open. The lead weight falls, jerking the foam slab from between the dural plate and the explosive. This permits the container to drop onto the explosive and at that moment, it closes an electrical switch causing a light to flash on in the control room. The shot is fired at this signal. The interval between the time when the container settles onto the explosive and the time the shot is fired is less than five seconds. This is not sufficient time for the liquid nitrogen to boil.

The electrical pulses generated when the shock wave shorts the pins are recorded on photographic plates along with fiducial pulses and timing markers. The pulse times are measured and paired with the appropriate pins. The shock velocities are then determined from a least squares fit of the time-distance data. A plot of these data is very similar to the illustration of Fig. 13.

A slight modification of the experimental assembly at the firing point is required when flying plate shots are fired. In this case the flying plate with suitable stand-offs is inserted between the explosive and the removable foam slab. A 0.03 cm thick polyethylene sheet is also placed between the explosive and the flying plate. When the foam slab is jerked out, the liquid nitrogen container comes to rest on the stand-offs forming the usual flying plate configuration.

In the shots in which low pressures are desired, brass or uranium attenuator plates 2.54 cm thick are placed between the explosive and the foam disk. The container then comes in contact with the attenuator plate after the foam slab is removed.