

*Pistol key.*

This serves for investigating the reaction-time in starting to run. The blast from the pistol barrel *a*, fig. 21, moves the fan *f* so that contact is broken at *d* for an instant, the lever being drawn back by a spring. Only a few experiments have been made with the apparatus. These, however, have brought to notice the following facts: 1. the reaction-time is about one-third shorter for short-distance runners, who are trained to start quickly, than for long-distance runners; 2. the reaction-time for movements of the whole body is longer than for movements of a single member.

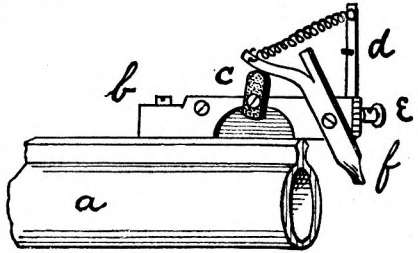


Fig. 21.

*Voice key.*

The voice key, fig. 22, is intended for experiments on the time of associating ideas. It comprises a cylinder of hard rubber holding a metal plate at the end furthest from the mouth. A fine screw rests lightly against this plate. The current is sent through the point of contact between screw and plate; it is interrupted by the vibration of the plate in response to the voice. With the spark method this produces a chain of dots on the drum while the word is being spoken.

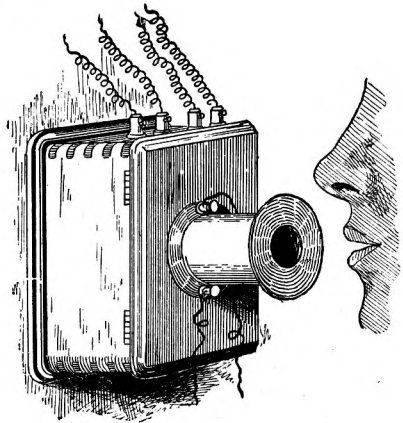


Fig. 22.

With two voice-keys and a telephone connection the person experimented upon can be in a distant room, a key being placed over the opening in each transmitter.

*Touch key.*

A long flexible spring, fig. 23, is mounted in a wooden handle and bears against a short rigid arm, also attached to the handle, so as to keep closed an electrical circuit. The circuit is led into the handle