ment next preceding each of the three being idle. The relative positions of these broad segments is not the same in the two sets, but is complementary. In the position corresponding to every broad segment of either set is, in the other set, a narrow segment connected with a grounded battery (the same battery serving of course for all three segments of each set). The broad segments are all grounded. The two distributors will be synchronous when the brush of one is on any one of its narrow battery segments at the same instant that the brush of the other is on the idle segment next preceding the broad one. If the synchronism is perfect, both brushes will pass off these segments at the same instant. If the brush on the idle segment is ahead, it will pass on to the broad segment while yet the other brush is on the narrow battery segment; a current through the line and broad segment contact to ground will ensue. This current excites a relay (located between the broad segment and the ground) which opens a local relay circuit (normally closed). As the armature of this second relay comes sharply to its back-stop, it thus short-circuits the resistance coil previously alluded to as being in the circuit of the battery which drives the tuning fork, and thus effects a slowing down of the fork and distributor, as before described. As there are three broad segments to be touched in each revolution, this synchronizing pulse may be sent three times, twice, or once, as may be necessary, in either direction in each revolution. The two distributors may thus be made to rotate together within one quarter of the width of one of the narrow segments of each, corresponding to a synchronism of about 0.001 second.

S. W. H.

A Well-Trained Dog.

A CERTAIN good New England deacon who had a weakness for fine dogs went to church one Sunday morning, and after the congregation had waited a long time for the minister, who for some reason failed to appear, he went into the pulpit to conduct the services in the pastor's absence. In the midst of the long prayer the deacon heard the church door opening with a slow and gentle creak, and, possessing the gift of seeing everything about him, with his eyes apparently closed, he beheld his favorite setter standing at the half-opened door. For an instant the good man was bathed in a cold perspiration of dread lest the dog should bound up the aisle, into the pulpit, hearing his master's voice; but a happy thought, born of desperation, struck him, and turning the course of his prayer somewhat, he went on, "O Lord, we give ourselves into Thy charge!" at the word the dog seemed changed to stone; not a muscle moved though every nerve was tense. The good man continued,—"And when we return to our home —!" That was enough, like an arrow the setter shot through the doorway, and with an unusually fervent expression of thankfulness for mercies received the deacon concluded his prayer.

Friedrich Wöhler.

THE names of Friedrich Wöhler and Justus Liebig will forever be linked together: the work which they did in common forms an epoch in the history of chemistry, and will exercise an undying influence on the development of modern thought; yet, although bound together by ties of friendship, and influenced by each other's work in no ordinary degree, the individuality of each was such that, beyond doubt, either could have been a great figure in science if the other had never lived.

Friedrich Wöhler, the son of a leading citizen of Frankfort, was born on the thirty-first day of July, 1800. In his early youth his passion for experimenting and the tendency of his mind towards the natural sciences developed themselves to the neglect of his other studies, and throughout his school life Wöhler did not manifest any particular diligence or genius. In his twentieth year he entered the University of Marburg, where it was the wish of his family that he should study medicine. Although he had no time to attend lectures on chemistry, he did not neglect this subject, but transformed his room into a laboratory, where he busied himself with the study of the compounds of cyanogen.