

TALKING MACHINES.

Herr Faber's talking machine, which has lately come over to have a palaver with the British public, is a very ingenious affair. Not that there is much actually new in it; for in this, as in other matters, there is nothing new under the sun; but it is honest in its way; it does the best it can, and it is what it professes to be.

Another class of these ingenious contrivances comprises pieces of mechanism which imitate the cry of certain animals and the song of birds. This has been rather a favorite problem with clockmakers. The cathedral clock at Lyons, made by Lippinus de Beale, and repaired by Nonnotus in the seventeenth century, had a series of dial plates on which the time of the year, the month, the week, the day, the hour, the minute was shown. Besides these there were figures of angels, a dove, and a cock; the hours were announced by the crowing of the clock, thrice repeated, after a preliminary flapping of wings; and when this crowing was done the dove descended, and the angels came forth from a recess and played a hymn on a set of bells. We speak of this clock in the past tense, not knowing whether Lyons still possesses such a curiosity. The marvelous clock in the beautiful cathedral of Strasburg had at one time a complication of mechanism still more elaborate; bells, arranged in a particular position, played three different times at three, seven, and eleven o'clock every day, and thanksgiving at Christmas, Easter, and Whitsuntide; when this was finished, a cock, which stood on the top of the tower, stretched out his neck, shook his comb, clapped his wings twice, and crowed twice. The bombardment may perchance have ruined this, but at any rate the many varieties of the clock have become unmanageably long ago. Vanocannon's duck, constructed a hundred and thirty years ago, quacked like a real duck. Among the curiosities preserved at Versailles in the time of Louis the Fourteenth was a clock made by Martinot. At the completion of every hour two cocks crowed alternately, and clapped their wings; after which two little doors opened, two figures appeared bearing two cymbals or gongs, and two sentinels beat on the cymbals with clubs. Maillardet constructed an oval box about three inches in length, from which, when the lid was opened, a tiny bird flew out, fluttered its wings, opened its bill with a tremulous motion, warbled its little song, and then shut itself down again in its nest. Those who remember the little automaton called the Swiss nightingale, at the International Exhibition eight years ago, will be prepared to understand that Maillardet has had many imitators. Some years ago there was an exhibition in London comprising figures of a child, a monkey, a goat, and a hare. The child said "Pa" and "Ma," and the goat bleated. In other automata we may sometimes meet with a barking sheep; and there was one in which a dog barked whenever fruit in a basket was touched by an intruder.

The machines which, with more or less success, imitate human speech, are the most difficult to construct, so many are the agencies engaged in uttering every single word—lungs, larynx, tongue, palate, teeth, lips—so many are the inflections and variations of tone and articulation, that the mechanician finds his ingenuity taxed to the uttermost to imitate them. The speaking doll, which gives forth its melancholy and woe-begone "Papa!" and "Mamma!" is a wonderment to all the little folks, who regret very earnestly that such dolls are too expensive to be freely purchased; but it is nevertheless a poor affair, albeit there has been much care and thought bestowed in devising the kind of vibrating reed to be used. About ninety years ago, a pamphlet appeared concerning two large brazen heads that were constructed by the Abbe Mical to effect something in the talking way. What was really done is rather doubtful; but we are told that entire phrases were pronounced, that the sounds were "surhumaine;" that there were two cylinders, one of which could produce determinate phrases, with proper intervals and prosody, while the other could produce all the sounds of the French language, analysed and reduced to the smallest number. There were people uncharitable enough to believe that the speaking was managed by a living person in an adjoining apartment, as in some other instances which we have mentioned; but the information is too slight to enable us to judge on this point. Kratzenstein, a few years later, made experiments on a series of tubes and vibrating reeds, which, by the aid of bellows, enabled him to produce or imitate the sounds of the vowels; but he appears to have made no attempt with the much more difficult sounds of consonants. Wolfgang von Kempelen, inventor of the far-famed automaton chess-player, constructed a talking figure which cost him a large amount of money, time, and inventive ingenuity. First he made experiments with tubes and vibrating reeds, which enabled him to imitate the sound of the continental "a," like our "ah;" then, with a tube and a hollow oval box hinged like the jaws, he produced the sounds of "a," "o," "ou," and an imperfect "e;" then he succeeded with the consonants "p," "m," and "j," and afterwards a few others; but there were some consonants or sounds which he never succeeded in imitating. Having combined the results of his researches, he constructed a head which contained the requisite wind-tubes and vibrating reeds, and a bust provided with some kind of bellows. Thus armed, his automaton could pronounce the words "opera," "astronomy," "Constantinople," "vous etes mon amie," "je vous aime de tout mon coeur," "Leopoldus secundus," and "Romsunus imperator semper Augustus." These words were spoken when the machine was wound up, without any player being required to press upon keys and pedals. Tubes to imitate nostrils produced "m" and "n;" a funnel and a reed changed "s" into "z," "ach," and "j," and there were various pieces of mechanism to imitate more or less successfully the movements and action of mouth, lips, teeth, tongue, palate, glottis, lungs, etc. Altogether it was what the chess-player was not—really an automaton. Professor Willis and Sir Charles Wheatstone some years ago devoted a good deal of attention to this matter; not, of course, for any exhibition purposes, but to analyze the production of vocal sounds in a scientific way. Sir Charles showed the results of his experiments at one of the meetings of the British Association. Professor Willis separated all the sounds, whether letters or exclamations, emitted in speaking, into three groups, which he called mutes, sonants, and nasants. Doctor Kesh, of Philadelphia, preferred a classification into tonic monophthongs, tonic diaphragms, sub-tonics, and spirations. Willis, leaving continents untried, made experiments in the mode of producing vowel sounds by mechanism. With an air chest, vibrating reeds, and cavities and tubes of different kinds, he produced a great variety of sounds. One curious result of his experiments was, that with the same apparatus, drawn out gradually in length, he could produce in succession all the vowel sounds which are

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FIFTEENTH (North), No. 521—General Dwelling. WALNUT, No. 1221—Modern Residence. TWENTY-THIRD AND CHERRY, N. E. Corner—Brick Factory. HATFIELD ROAD—Country Site, 4 acres. CHELLEN HILLS, Montgomery County—Elegant County Seat. 22—General Dwelling. GERMANTOWN AVENUE, No. 2402—Tavern and Dwelling. HARLAN, north of Haron—3 Lots. TWENTY-NINTH (North), No. 1049—Modern Residence. TWENTY-SECOND AND WALNUT, N. E. Corner—Modern Residence. GREEN LANE—Modern Residence. FIFTEENTH (North), No. 614 to 620—Brick Factory. SIXTH (South), No. 233—Valuable Dwelling. HOWARD Nos. 2221—General Dwelling. EMLEN, No. 249—Modern Dwelling. EIGHTHENTH (North), No. 628—Modern Residence. FOWLETON AVENUE, east of Forty-first—Two Modern Residences. GREEN, No. 617—Modern Residence. SECOND (North), No. 239—Store and Dwelling. LEE, No. 259—General Dwelling. FIFTH, No. 267 (South)—Modern Residence. CALLOWHILL, No. 2435—Store and Dwelling. TENTH (South), No. 1707—Neat Dwelling. 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On Monday Morning, at 10 o'clock, at No. 1117 Chestnut street, Oct. 31, will be sold the balance of the superior furniture, comprising elegant antique parlor suits, in silk, damask, and pink; walnut chamber suits; dining and library suits, in terry and meroco; walnut wardrobes; walnut dining-room and chamber chairs; dressing benches; concert tables; bonnets; extension dining tables; hat racks, folding chairs, easels, etc. The furniture is now open for examination. BUNTING, DUBROW & CO., AUCTIONEERS, No. 529 and 534 MARKET street, corner of Bank street. Successors to John B. Myers & Co. LARGE SALE OF FRENCH AND OTHER EUROPEAN DRY GOODS. On Monday Morning, October 31, at 10 o'clock, or four months' credit. November 1, at 10 o'clock, on four months' credit. LARGE SALE OF BRITISH, FRENCH, GERMAN, AND DOMESTIC DRY GOODS. On Thursday Morning, November 3, at 10 o'clock, on four months' credit. MARTIN BROTHERS, AUCTIONEERS, (Lately Salesmen for M. Thomas & Sons.) 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