

PIANO-FORTES.

There is no musical instrument so much admired or more generally used than the piano-forte, and we venture to say that not half of the people who use them have any idea where or when they were invented, or how long they have been in use. We do not propose to enter into a long treatise on the invention and progress of the use of these charming instruments, but to give a date and a name or two of their first appearance and makers, as well as from what words "piano-forte" had its derivation. The compound word is from two Italian words, meaning loud and soft—probably from the ease of control in producing both—which is much greater at the present time than when first invented. Long before the invention of pianos harpsichords and spinets were in use, and were considered the perfection of musical instruments.

One of these harpsichords was used in the family of General Washington, the "Father of our country," and the old instrument may yet be seen at Mount Vernon, the home of Washington, where a "gentleman ob color" will be pleased to inform you that "dis is de pianner ob Gen'l Washington."

During the latter part of the last century, a German named Schroeder, is said to have invented the present piano-forte. It was first introduced into England in 1766, by Dumpe, who by his talent and arduous labor, greatly improved it. Dumpe, with his perfected instrument, became famous, and was often invited to visit the residences of the nobility, and tradition has it that even George III, often called Dumpe and a German performer before him to hear the new musical instrument. It was not long before it was classed next to the organ, for its clearness of articulation, sweetness of tone, and ease of manipulation. So popular was it during the last of the eighteenth and beginning of the present century, that Hummel, Herz, Crammer, Chopin and other distinguished musicians of Europe, composed pieces expressly for this instrument, so greatly was it admired.

During the past twenty years the United States has out-stripped all other nations in the manufacture of these new, elegant and charming instruments. There are nearly one hundred piano manufacturing in the United States, the largest, most perfectly arranged and extensive of which is that of Steinway & Sons. This immense manufacturing covers an entire block in the city of New York, being situated on Fourth Avenue, and extending from Fifty-second to Fifty-third Streets. It has an uninterrupted frontage on the avenue and streets named of 606 feet, and including the basement is six stories high.

The floors of the factory buildings have a surface of 130,480 square feet. In the rear of the buildings there is an open space of ground, containing an area of 30,000 square feet, on which 3,000,000 feet of lumber are constantly stored in the open air, for seasoning purposes; each separate piece of which is exposed to all the atmospheric changes for two years, and then kept in the steam drying-rooms for three months prior to being used. These drying-rooms are divided into five compartments, each of which contains about 80,000 feet of timber, so that about 400,000 feet are constantly under the process of kiln-drying. Each of the compartments is heated by 2,000 feet of steam-pipe. Beneath the yard alluded to, there are fire-proof vaults for the storage of coal, and here also are placed four steam-boilers, of the aggregate power of 320 horses, by which the necessary amount of steam is generated for the 70,000 feet of pipe used in heating the drying-rooms, as also heating the workshops and driving three steam-engines of respectively 125, 50 and 25 horse power; these, in turn, putting in motion no less than one hundred and two different machines.

It would require the extent of a goodly-sized volume to describe the 102 different planing, sawing, jointing, drilling, morticing, turning, and other machines used in this factory, and to elucidate their various objects; it therefore must suffice to state, that, from careful and moderate estimate, they replace the hand-labor of at least 500 skillful workmen.

This vast manufacturing business is divided into eighteen departments, each of which is placed under the control and constant personal inspection of a skilled foreman, these, in turn, being controlled by a head foreman. No workman is permitted to work at more than one branch of the business; thus, from the fact that every workman is continually making only one and the same article he achieves an absolute perfec-

tion in his work, unobtainable in small factories, where such strict subdivision of labor cannot exist. Again, in this great and strictly adhered to division of labor, the article, until it is finally completed, passes through the hands of a number of different workmen, none of whom receive it from the previous workman in that stage of manufacture unless it is perfectly faultless in every respect.—*Ex.*

MATHEMATICAL PRODIGY.—The New York Journal of Commerce says:

At or near Warrensburg, Johnson County, in this State, resides a poor widow woman, who has a son, Reuben Field, a mere boy, untutored, and seemingly almost incapable of literary culture, who yet possesses most remarkable powers of mental calculation. As evidence of this, among many other evidences that might be cited, a gentleman of St. Louis, who had heard of his possessing this faculty, sent him the following figures, viz.: 145, 145, 145, 145, asking him to square this number mentally, that is, multiply the number by itself, and send him the result, with the time taken to perform it, scarcely believing, however, notwithstanding the extraordinary accounts related of him, that he would be capable of the task. In this, however, he was mistaken, as were others to whom the proposition had been named. A letter has been received by the gentleman named, from a highly respectable and reliable citizen of Warrensburg, who states that in three minutes' time the boy Field mentally and accurately pronounced the result, 21,067,113,159,163,117,071,025, or written in words, twenty-one sextillions sixty-seven quintillions one hundred and thirteen quadrillions one hundred and fifty-nine trillions one hundred and sixty-three billions one hundred and seventeen millions seventy-one thousand and twenty five.

AN ELECTRIC SAFETY LOCK.—MM. Duve and Lemaire, two young mechanicians in Paris, have invented a new kind of safety lock. The key opens the lock without ringing the bells; but if a false key be introduced, a "jimmy," or any piece of metal, the bells are set going as long as the piece is applied. This is effected by the disposal of these several tumblers with regard to a small lever which completes the battery circuit when elevated. When all the tumblers are lifted simultaneously, as by the master key, the lever is not raised and no alarm is given; but if one, or two, or three be lifted, the alarm lever is raised and the ringing takes place. If the burglar, knowing the mechanism of the lock, try to force the lock plate by any of the usual burglar's instruments, as soon as the metal is attempted to be wedged in, the ringing commences. The safety lock can be applied to all doors or fastenings without distinction. The acting agent of alarm is a feeble current of electricity, produced by a small battery of two elements. The pile used is that of Lelanche (small model,) with peroxide of manganese and a single liquid, which does not require touching for several months, and then even a little water is all that is necessary to replace that lost by evaporation. The master key is protected by an insulating substance, so that when introduced it establishes no contact, nor does it raise the alarm lever when the tumblers are lifted. Now, supposing a burglar to have a dozen or so isolated keys, he could introduce any one of them silently, but on his attempting to turn it, the wards not being those of the master key, the alarm would be continuously given and put an end to his experiments so that he could not try one key after another.—*Journal of the Telegraph.*

EXTRAORDINARY HEROINEISM.

It has been reserved for Chicago to produce one of the most remarkable young ladies of the age—a veritable heroine, the model girl of the period.

There lives on Washington Avenue, in a home of respectable interior, a young lady, the pride of her mother and joy of her papa. She is, or rather she was, in every respect, an attractive, graceful, and accomplished girl; and so thought young Mr.—to whom she is engaged, and who, looking to her as a lover, could see, of course, no blemish in her.

Yet there was one little defect, one small imperfection, which was said to mar the symmetry of her otherwise perfect form. Nature had given her wonderfully small feet, but although in length they were all that a Chinese

beauty might have adored, they were just a little too broad in proportion to their size. But for this little oversight of nature, they would have been the most ravishing pair of little feet that ever "twinkled" beneath a petticoat. The young lady often sighed as the bootmaker took the measure of them, and thought how she might have dazzled the world, and her adored particularly, had nature been a little less liberal. In short, her feet gave her no rest by day or night. She was about to be married, and, in view of that event, she resolved to make a double sacrifice.

A few months ago she visited an eminent surgeon of this city, and made a proposal which caused the practitioner to shudder. He at once declined to accede to her request, and there the matter dropped for a time. More recently the young lady renewed her proposition, expressing her firm determination to have it carried out, and so persistently did she cling to her resolution, that the doctor was at last prevailed upon to comply with her wish. This was nothing less than the amputation of the small toe of each foot, which would reduce the member to a size exactly proportioned to its length. The operation was one demanding the nicest skill on the part of the surgeon, and a few days since was successfully performed with the consent of the young lady's relatives and friends. The obnoxious toes have been extracted, just like teeth, leaving the feet somewhat disfigured for a time, but suited to fit into the smallest, daintiest little boot that can be fashioned. The young martyr is now in bed, waiting patiently for the wounds to heal.

The operation has cost her a pang, perhaps; but only think what she has gained (what she has lost) by it! Two small fantastic toes! Many a victor has lived long, honored and happy, with one foot in the grave. This courageous little heroine has achieved a victory which the fashionable world will delight to honor, and she can now walk abroad without trailing her skirts. Doubtless she is aching for the next evening party, where her little foot will be exhibited as a triumph of Art over Nature. The young lady has boldly put into practice the scriptural precept, "If thy toe offend thee, cut it off."—*Chicago Times.*

THE LAND QUESTION IN IRELAND

THE 8th of next month is the day fixed for the re-assembling of the British Parliament, and the telegrams a day or two since informed us that Mr. Gladstone had issued a circular, requesting the friends of the administration to be in their seats on the day named. The character of the legislation in Britain last year was enough to render Gladstone's administration one of the most famous in British history; not from the fact of great victories gained over foreign foes by land or sea, but because of the overthrow of a giant wrong at home, namely the emancipation of several millions of people in Ireland from Protestant religious domination, or in other words, rendering compulsory support to a church in which they did not believe.

This reform, great and just as it was, was only a small part of that necessary to redress the wrongs which the Celtic race in Ireland were compelled to endure at the hands of their alien rulers. The land question is of infinitely greater importance to the masses of that country than the church question. The latter affected their pecuniary interests to some extent, but the former involves their all. The land question also more vitally affects the interests of the owners of the soil, then did the church question and in the forthcoming session of the British parliament we may expect far stormier times than during the agitation of church disestablishment for the Gladstone government is pledged to bring about reform in one case as well as in the other; and by the time the coming session is prorogued it is more than probable that one of the greatest wrongs to which any nationality is subjected will have received its death-blow.

This question is the great source of Fenian and all other agitation and discontent that exists in that country; and it is surprising that public opinion in Great Britain has so long tolerated the existence of the abuses of which it is the cause, not only in Ireland, but throughout the whole nation. With a population of about forty millions of people the land owners of the British Isles number only about thirty thousand. This system is perpetuated and sustained by the laws of primogeniture and entail, which prevent the large estates from being sold out of the great aristocratic families who possess them. In England, Scotland and Wales the

evils of this system are fearfully apparent, and it is the main cause of the pauperism with which the nation is flooded; but great as are the evils there they are not near as great as in Ireland, for with scarcely an exception the land owners of the latter country, as if by preconcerted action, while faithful in collecting their rents from their tenants are just as faithful in expending them in other countries, thus draining Ireland of its wealth.

Then again the land laws in Ireland are such that the tenants have no recognized rights,—they are entirely at the mercy of the landlords. Thousands of the Irish people are small tenant farmers, and under just laws they might be prosperous and comfortable. But, there has been no encouragement to their enterprise hitherto, for if they, at their own expense, drained and fenced their land, erected good barns and made other improvements in order to render their farms more profitable, they have had no assurance that their rent would not be raised on account of those very improvements; and the rule has been to compel these poor people to pay this increase or to eject them and so bring about their ruin. The land laws in Ireland have permitted the practice of such flagrant wrongs, and so generally has this prerogative been enforced by the landlords that the enterprise and industry of the Irish population have been all but extinguished; they have become proverbial for squalor and poverty, and in hundreds and thousands of instances the industrious agriculturists of that country have seen themselves and all they held dear reduced to beggary and starvation by the practice of such high-handed injustice and tyranny. They have protested for centuries, but all in vain; their landlords have had the law on their side, and the impossibility of obtaining redress has driven the tenant farmers to desperation and has led to the commission of so many "agrarian outrages," or in other words to the assassination of so many landlords.

Recourse to violence and murder is to be deplored under all circumstances; but where the rich and the educated show so little regard for the rights and lives of the poor and ignorant, it is surprising that more lives have not been sacrificed. Who can wonder that, in a nation where the law has sanctioned such an outrageous disregard of right, at the organization of secret societies for the overthrow of the system of misrule that permitted it, and at the hatred existing in the hearts of Fenians and Irishmen generally against English domination in their much loved country? The land itself is one of the most fertile under heaven, its people are industrious and frugal, yet through centuries of misrule they are reduced to a condition worse than serfdom.

To abolish this system by legislation is the task before the Gladstone government in the forthcoming session of parliament. All the power of the landed aristocracy will no doubt be brought to bear in opposition to measures jeopardizing what they, through centuries of possession, have come to consider as their inalienable rights; but the fiat has gone forth, the days of primogeniture and entail are numbered and during the coming season the hardest battle ever fought in the legislative halls of Britain will be fought, and, it is to be hoped, decided on the side of justice and right.

The passage of laws adjusting these long pending difficulties recognizing and guaranteeing the rights of the tenant as well as if the landlord, in Ireland will do what a large military force and thousands of police have never been able to do,—namely appease agitation and restore content, and it is reasonable to suppose, will inaugurate such an era of prosperity for her people as they have never seen. The task will be a difficult one; but where there is a determination on the part of the law makers to do justice to the many, its difficulties are not insurmountable, and in the accomplishment of such a great work the administration of Wm. E. Gladstone will earn imperishable honor.

A little three year old girl in New Orleans recently astonished her mother—who attempted to correct her—by motioning her away with a chubby little hand and scornfully saying, "Shoo, fly, don't bodder me!"

An Iowa paper advertises for "a girl to learn the printing trade, who will wear pants and saw wood."

A little girl, seeing a litter of kittens for the first time, expressed her opinion "that somebody had shaken pussy all to pieces."