

- No. 1557. J. Bostwick, St. Catharines, O., 17th July, 1872. A clothes line holder.
- No. 1558. D. Maxwell, Paris, O., 17th July 1872. An improved straw cutter.
- No. 1559. D. A. Johnston, Ainsleyville, O., Assignee of M. Smith, Grey, O., 17th July, 1872. Improvements in sawing machines.
- No. 1560. L. Butterfield, Bradford, O., 17th July, 1872. Improvement in machines for threshing and separating grain.
- No. 1561. W. Stoddard, Three Rivers, Q., 17th July, 1872. Improvements in saw-mills.
- No. 1562. J. Sullivan, Thornton, O., 17th July, 1872. Improvement in chamber pots.
- No. 1563. C. Powell, Newton Brook, O., 17th July, 1872. Improvements in pumps.
- No. 1564. J. Webb, Portneuf, Q., 17th July, 1872. Improvements on the art of manufacturing paper from wood pulp and on the apparatus used therefor.
- No. 1565. W. H. Collins, Columbus, O., 17th July, 1872. A carriage wheel.
- No. 1566. W. Hamilton, St. John, N. B., 17th July, 1872. Machine for washing clothes.
- No. 1567. W. L. Kinmond, Montreal, Q., 17th July, 1872. Machine for coiling spiral springs.
- No. 1568. J. H. Swartwout, Toronto, O., 19th July, 1872. Improvements in saw mills.
- No. 1569. P. Beauregard, St. Pie, Q., 22nd July, 1872. An improved borer for artesian wells.
- No. 1570. H. Bolton, Elizabethtown, O., 22nd July, 1872. Improvement in churns. (Reissue of patent No. 259, Canada.)
- No. 1571. A. A. Wood, Whitby, O., 22nd July, 1872. Improvements on reapers.
- No. 1572. T. Northey, Hamilton, O., 22nd July, 1872. Improvement on shaft couplings.
- No. 1573. W. Clark, South Dumfries, O., 3rd August, 1872. A composition for cattle wash.
- No. 1574. H. White, Hamilton, O., 3rd August, 1872. Improvements in lamps.
- No. 1575. J. M. Williams, East Camden, O., and J. Bettes, Cramahe, O., 3rd August, 1872. A machine for dressing mill-stones.
- No. 1576. H. T. Sarge and H. C. Ireland, Toronto, O., 3rd August, 1872. Improvements in boots and shoes.
- No. 1577. W. C. Evans, Kingston, O., 3rd August, 1872. Improvement in bedsteads.
- No. 1578. T. Kater, Hamilton, O., 3rd August, 1872. Improvements in pianos.
- No. 1579. E. L. Fiererty, Halifax, N. S., 3rd August, 1872. Improvement in skates.
- No. 1580. J. Roué, St. John, N. B., 3rd August, 1872. An apparatus for cleaning bottles.
- No. 1581. E. M. Coventry, Hamilton, O., 12th August, 1872. An improved turbine.
- No. 1582. T. F. Goulette, Montreal, Q., 12th August, 1872. Improvements on railway ploughs.
- No. 1583. J. Fisher, jr., Woodstock, N. B., 12th August, 1872. Improvement in ploughs.
- No. 1584. W. Fish, Eilers' House, N. S., 12th August, 1872. Art or process of converting iron into steel.
- No. 1585. J. Massie, Colborne, O., 23rd August, 1872. Machine for locking window sashes.
- No. 1586. W. K. Reynolds, St. John, N. B., 23rd August, 1872. Improvements in the construction of railways.
- No. 1587. W. Milner, Strathroy, O., 23rd August, 1872. Improvements in carriage seats.
- No. 1588. G. Dixon, Toronto, O., 23rd August, 1872. Improvement in railway car trucks.
- No. 1589. J. J. Webster, Magog, Q., 23rd August, 1872. Improvements in flour mills.
- No. 1590. J. F. Cass, L'Orignal, O., 23rd August, 1872. Improvements in hay racks.
- No. 1591. D. Davis, London, O., 23rd August, 1872. Improvement on brick machines.
- No. 1592. C. Powell, Newton-Brook, O., 23rd August, 1872. Improvement in wooden pipes.
- No. 1593. G. L. Beemer, Brantford, O., 23rd August, 1872. Improvement in fences.
- No. 1594. J. Hally, Valleyfield, Q., 23rd August, 1872. Improvements on the manufacture of peat and on the apparatus used therefor.
- No. 1595. G. A. Savary, Plympton, N. S., 23rd August, 1872. Improvements in locks and keys.
- No. 1596. J. Seales, Toronto, O., 23rd August, 1872. Improvements in tobacco lump machines.
- No. 1597. W. McKay, Ottawa, O., 23rd August, 1872. A hydraulic and plastic cement.
- No. 1598. C. M. Taylor, Assignee of P. H. Sims, Waterloo, O., 31st August, 1872. Improvements in lamp heaters.
- No. 1599. O. C. Herbert, Halifax, N. S., 31st August, 1872. Improvements in the art of manufacturing gas.
- No. 1600. R. Freeland, Montreal, Q., 31st August, 1872. Improvements on the manufacture of soap.

MEZZOFANTI, THE MAN WHO SPOKE FIFTY-SIX LANGUAGES.

The *American Educational Monthly* for August contains a very readable sketch of the most remarkable linguist that ever lived. Giuseppe Gaspardo Mezzofanti, the prodigy who spoke fifty-six languages, was the son of a poor carpenter of Bologna, where he was born in 1774. He died in Rome in 1849. His father designed him for the paternal calling. His work-bench happening to be under the window where Father Respighi was instructing some private pupils in Greek and Latin, young Mezzofanti picked up the words by ear and surprised his unconscious teacher when, one day, without knowing the Greek alphabet or ever having seen a Greek book, he repeated and accurately explained a great number of the words which had fallen on his ears while at work. This anecdote is paralleled by one told by Coleridge in his table talk, where a servant, employed by an English clergyman, who was in the habit of reading aloud his Hebrew bible in his study, actually repeated, during intervals of delirium, whole chapters of the old Testament in the original text. She, like Mezzofanti, had no knowledge of the alphabet, grammar, or dictionary, but the memory, which had casually caught the words and their connection, tenaciously held them.

The gifted young man desired to leave his trade and enter the Church. The kind-hearted old oratorian assisted him. He picked up language with wonderful facility. His memory retained every word his ear had once heard. It was not only the words but the connection—in idioms he was peculiarly strong—and the intonation. He learned in college, Latin, Greek, Hebrew, and Arabic. His first lessons in German were derived from Thiuli, a Bolognese ecclesiastic. He picked up French from an old priest of Blois, Swedish from an old Swedish physician, who had settled at Bologna, and Coptic from a learned clergyman, the Canonico Mingarelli. In 1797 he obtained priest's orders, and shortly afterwards he was appointed Professor of Arabic in the University of Bologna. He refused to take the oath of allegiance to the Cisalpine Republic, and in consequence lost his position. In 1804 he was restored, and in 1808 again deposed, owing to fidelity to Pius VII. In 1812 he obtained the position of assistant librarian of his native city, and two years afterwards he was made chief librarian. Napoleon endeavoured to lure him to Paris, Murat to Naples, the Grand Duke of Tuscany to Florence, the Emperor Francis to Vienna, and even His Holiness Pius VII. to Rome; but in vain. He remained at Bologna until 1832, when Gregory XVI., an intimate friend of his, after, as he laughingly put it, "a regular siege," finally succeeded in installing him as Prebend of St. John Lateran Church. He was subsequently the successor of the celebrated Mar as librarian of the Vatican, and in 1840 he and his predecessor were elevated to the Cardinalate.

It was during the sixteen years that elapsed between Mezzofanti's elevation to the chief librarianship and his removal to Rome that he extended and perfected his knowledge of language. He was "foreigners' confessor" at Bologna, a position usually intrusted to a large staff in Roman Catholic cities. He visited the hospitals assiduously, and never failed to improve an opportunity at picking up a new language or perfecting his knowledge of one with which he was already familiar. It was not that he had simply a knowledge of the languages, but he spoke them with fluency, pronounced them correctly, and wrote them idiomatically. The porters said runners at Bologna always mentioned Mezzofanti as one of the wonders of the town, and no literary foreigner visited the city during his residence there who did not call upon him. They were all impressed with his proficiency. Lord Byron, Herr Jacobs, Guido Gowes, Dr. Baines, (in "Miss Mitford's Recollections"), and M. Manairt all witness to the powers of this gifted priest, who, if he had lived at Babel, would, as one of them has quaintly remarked, have been able to have acted as general interpreter. Dr. Baines says: "The last time I was in Rome we went together to the Propaganda and heard speeches in thirty-five or thirty-six languages by converts of various nations. Among them were natives of no less than three tribes of Tartars, each talking in his own dialect. They did not understand each other, but the Cardinal understood them all, and could tell with critical nicety the points in which each jargon differed from the others." He mastered Chinese late in life, and yet he was able not only to converse with the Chinese students in the Propaganda, but to preach to them and deliver a set of homilies in their own tongue. Herr Gowes says that he spoke eight languages in his presence of an evening, and changed from one to the other with the greatest facility and without confounding the words or pronunciation of the one language with those of another. He sent this same traveller the name of God written with his own hand in fifty-six languages, of which thirty were European, not counting their subdivisions into dialects; seventeen Asiatic without counting dialects; five African, and four American. Mezzofanti's life was simple and childlike, and devoid of all pretension.

ORGANS.

Pan's-pipes or the *tyrinx* was probably the origin of the organ. Organs are believed to have been first used in churches in 637. Finger-keys are mentioned as early as 757, when Constantine sent one with that addition to Pepin, king of France. This was probably the organ erected at that date in the church of St. Cornille at Compiègne. Hydraulic and pneumatic organs were soon introduced. Of the former, William of Malmesbury says: "The wind being forced out by the violence of the hot water, fills the whole cavity of the instrument, which, from several apertures, passing through brass pipes, sends forth musical notes." Before the tenth century, those in England were more important than those abroad. Elleg, bishop of Winchester, got one in 951 for his cathedral, and this was the largest then known. In the eleventh century, Theophilus, a monk, wrote a treatise on organ-building, but the organ did not assume its present form until the middle of the 15th century. Half-notes were introduced about that time, and in 1470, a German named Bernhard added pedals or foot-keys. In 1641, a great many fine instruments were destroyed, and at the Restoration it was necessary to introduce foreign builders into England. Bernard Schmidt (or Father Smith) and his nephews came at that time. There is a chamber organ by him, probable date 1670, at South Kensington. The Schmidts and the Harrises, also celebrated organ builders, had a trial of skill at the Temple Church, each family erecting an instrument; Lord Chancellor Jeffries gave his decision in favour of the Schmidts, who have organs at Christ Church and

St. Mary's, Oxford; Trinity College, Cambridge; St. Margaret's, Westminster; St. Clement's Danes, St. Paul's Cathedral, and Southwell Minster. Schmidt's son-in-law, Schreider, built the organs at Westminster Abbey and St. Martin-in-the-Fields. Though the continental church organs may appear to have more stops than ours, many of these are only half-stops. In fact, as has been said, "we possess some which, in regard to the greater calibre of the pipes, and power of every kind, surpass any foreign instrument." There are fine organs of this kind at York Minster and the Town Hall, Birmingham, the former having more than 4,000 pipes.

A great deal of discussion has arisen respecting the meaning of the word "pair" when applied to organs in old inventories. Douce thinks an organ was so called when it had two rows of pipes; but when that was the case, the word "double" was used. One antiquary thinks it means the fixed and portable organs united; another, an organ with two rows of keys; but the term was used before more than one row of keys was known. "A payre of orgongs" occurs in a church-warden-account for 1444. We think the opinion of Mr. T. L. Southgate (*Essex Archaeological Society's "Translations,"* iv. 181) the correct one—namely, that it means simply a complete one, being identical with "set," as a pair of scissors, a pair of cards, a pair of spectacles, etc. The "portative" mentioned in inventories is a small portable organ which could be carried in processions. Mr. Southgate says it was sometimes used in churches to play the melody only of the *cantus firmus*. The fixed or positive organs were sometimes carried in procession, as in the cuts of the Triumph of Maximilian, engraved in 1516 by Burgmaier. One of these instruments is there represented being carried in a car, and being played upon by Hoffmaister, a celebrated organist.—*Chambers's Journal*.

CANADIAN PROGRESS.

The Windsor *Record* is informed that the North Shore Silver Mining Company have struck rich silver ore at a depth of only eight feet from the surface, which will produce \$50 of silver to the ton.

Mr. Abbot, managing director of the Canada Central Railroad Company, left Brockville last week for Sand Point, to personally superintend the construction of the branch to Renfrew and ensure its completion before the 15th of October.

The Lindsay *Post* is advocating strenuously the immediate construction of the Lindsay, Fenelon Falls and Ottawa River Railway. It points out that the Nipissing Railway will have a very injurious effect on their market if some steps are not taken to counteract it, and suggests that the construction of the road advocated by it will bring Toronto, Whitby and Port Hope merchants into eager competition on the Lindsay market.

The Norfolk railway question is likely to be on the carpet again in the course of a fortnight, when application will be made to the ratepayers of Norfolk, through the sections of country where the line will run, for aid to the road. The *Waterford Express* has no doubt "that a scheme can be submitted to the electors of Townsend, Simcoe, and Woodhouse, such as will meet their approval; that is, in case the road runs to Dover." On the other hand, the promoters of the Woodstock and Port Dover Railway are zealously at work in the furtherance of their project. It remains to be seen which will be found to be the most popular.

Work on the Gananoque and Rideau Railway is still progressing slowly. It is stated that several of the parties from whom the right of way must be obtained asked more than the company felt inclined to give. Their cases have been left to arbitration and will probably be settled to the satisfaction of all concerned. One or two owners refused to allow the company to enter upon the land until the price was agreed upon; and as this would cause considerable delay, application was made to the judge, who issued an order to the sheriff, and the company was duly placed in possession.

The Halifax *Citizen* has an article on the bright prospects of that city, in which it points out the advantages of Halifax, now that the Intercolonial approaches completion, and warns the leading business men and heavy capitalists that they must avail themselves promptly of the increased facilities for trade or stand aside and see strangers reaping the harvest. The completion of the railway to Amherst gives Halifax connection with the continental system of railways, and ensures the landing of a portion of the mails and passengers from Europe at that port, as there is an irresistible tendency to shorten sea voyages and save time. When the Intercolonial is finished it is anticipated that "a large part of the traffic which has hitherto gone by the Portland route, when the St. Lawrence is closed in winter, will go by the Intercolonial." "In fact," it claims, "Halifax will become 'the wharf,' as has been said, of British North America, and to some extent too of the United States, and at the same time the half-way house between America and Europe."

PORT DOVER AND LAKE HURON RAILWAY.—The prospects of this enterprise are thus summed up by the Woodstock *Sentinel*: Thanks to the exertions of Messrs. Moore and Bullock, the Woodstock directors of the Port Dover and Lake Huron Railway are being roused into something like activity in prosecuting the scheme and furthering its progress amongst the people. More correctly, we should say a portion of the Woodstock directors; for, so far, the duty of canvassing for the requisite private stock seems to have devolved entirely on Mr. Clarke and his co-directors from Norwich, with such auxiliary aid as could be secured by pressing into service any other of our prominent and enterprising citizens. Notwithstanding this culpable apathy by a part of the Woodstock representation, we are glad to know that the scheme is being readily supported by the people. Already \$18,000 of stock have been subscribed in Woodstock, and it is confidently expected that this amount will be increased to twenty or twenty-five thousand. Twenty-eight thousand would give us a representation on the permanent board of directors—a fact which should not be lost sight of by subscribers. The two Norwiches have subscribed about \$25,000, so that, altogether, between forty and fifty thousand—nearly half the required amount—have been secured without an appeal to any of the more southern or northern municipalities which are equally interested. Port Dover, we are assured, will without doubt furnish \$15,000, and with proper exertions elsewhere the \$100,000 stipulated by charter should be forthcoming in six weeks. That secured, the construction of the road is an absolute certainty.

THE BURNING OF ST. PATRICK'S HALL, MONTREAL.

On Wednesday, the 2nd inst., at about half-past two in the morning, a fire broke out in the roof of Ronnyne's shoe factory, situated on the upper flats of Shaw's auction rooms, on Craig street, and separated from the St. Patrick's Hall building by an alley some twelve feet wide. The origin of the fire is unknown. The alarm was at once given, and as the fire did not look very serious, it was thought a stream would soon put it out. Unfortunately, however, owing to the hydrants being out of order there was not the usual promptitude in getting water to play on the fire which, gathering headway, soon extended to the front part of the building. A brisk breeze from the eastward at the time fanned the destructive element to redoubled fury, carrying burning embers far and wide. The fire, which had now got beyond human control, quickly caught the roof of St. Patrick's Hall, and in a few minutes it also was a mass of lowering flames. The fire, which kindled in the roof and upper windows, burned its way down through the floors. When morning dawned the once fine hall was a heap of ruins. The chief sufferers by the fire are Messrs. Ronnyne, in whose premises it originated, and Mr. P. Shaw, the well-known Montreal auctioneer. Other sufferers are Messrs. Whiteside & Co., spring-mattress makers; T. Stewart, tea dealer; J. & W. Hillon, manufacturers of furniture; F. Hill, piano dealer; Higgins Bros., wine merchants; Devany & Co., auctioneers; Jones & Tooley, sign painters. The total loss will be about \$160,000. The Hall was insured for \$55,000, and the stock and furniture of the sufferers are tolerably well covered by insurance.