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## THE TRADER.

TORONTO, ONTARIO, JUNE, 1882.

Sent free to every Jeweler and Hardware Merchant in the Dominion of Canada.

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## Editorial.

## THE OUTLOOK.

The Ontario Bureau of Agricultural Statistics has just issued its first report, which, on the whole, is highly satisfactory. It shows that, although we cannot look forward to the wonderful harvest of last year, a good average crop will reward the labors of our farmers. To a country like Canada, that depends for its prosperity mainly upon its agricultural resources, this is cheering news, for it indicates a prolongation of the good times that we have lately experienced. When crops are good the country is prosperous because the farmers are enabled to pay their debts and launch out into small extravagances that in hard times they would never dream of. This enables the merchants throughout the country to meet their bills with promptitude and gives an increased impetus to a thousand industries which would be otherwise depressed. The fact is that in a country like Canada the difference between good and bad times is simply the difference between a good and bad harvest. The outlook is promising, and it may be confidently predicted that the country is safe for another year.

## AS USUAL.

As usual, party politics have proved stronger than national necessities, and consequently the bill for the rateable distribution of an insolvent's assets and many other equally good legislative measures have been consigned to the political limbo, or, in parliamentary language, "have received the six months' hoist." This is much to be regretted, not only because it argues ill for the

country when necessary mercantile legislation is thrust aside to make way for such uncalled for legal monstrosities as the Re-distribution Bill, but because the non-passage of an insolvent act at the present juncture may very seriously cripple our mercantile interests.

It is now too late in the day for any one to attempt to controvert the broad principle which underlies all Insolvent Acts, viz. that an insolvent's estate should be divided *pro rata* amongst all his creditors, and the truth of this being admitted, it follows as a matter of course that any law, or want of law, which will allow one creditor to take everything and allow the rest nothing, must be essentially unjust both in principle and practice. This injustice is freely admitted by politicians as well as mercantile men, and but for the exigencies of party politics, would have been legislated upon ere this. Party politics, however, have as usual overtopped every other consideration, and as a result, the country will for another year have to struggle against a condition of things highly prejudicial to honest dealing. We have before had occasion to point out some of the evils connected with the want of a good insolvent act, and it would be superfluous to again go over the same ground. We may however in passing, say that every day brings to light new specimens of how easily a debtor can legally enrich himself at the expense of his creditors.

Shall this state of affairs continue? We hope not, for it is certainly for the best interests of both debtor and creditor to have some law by which an equitable division of an insolvent's estate could be made. Such a law would not only protect each class more fully in case of failure, but would help to strengthen the credit and standing of debtors, who would then be beyond the reach of personal malice and sudden panic.

The importance of this subject is becoming more apparent every day, and we trust that another year will not be allowed to pass over without some fair and comprehensive law being placed upon the statute book to meet the necessity.

## THE ELECTIONS.

In spite of the many attempts to hoodwink the people, it has been for a long time apparent that the session just ended was to be the closing one of

the present parliament of Canada. Even a blind man might have seen that the Re-distribution Bill meant nothing more nor less than the strongest party were getting themselves ready for the fray.

Now that parliament has been prorogued and further concealment is useless, the cat is finally allowed to come out of the bag, and the official announcement is made that the writs are to be issued on the 18th and the elections to take place on the 20th of the present month.

Now that the elections have been decided upon, it is just as well that they should be decided at once. Business will be sure to be at a standstill until they are settled, and the shorter the time for preparation the better for the country at large.

With the exception of a few pot-hunting politicians, people do not make any money out of politics, therefore the less time wasted upon it the better. As a rule, most people have already made up their minds how they will vote, and six months haranguing and canvassing would fail to make any decided change in them. This being the case, we think the sooner they are decided the better both for the country and for the candidates themselves.

The duty of every elector is now apparent, each one should weigh carefully the merits or demerits of both parties and cast their ballot according to their honest convictions. If they are satisfied with the general policy of the government then vote to sustain them in power; if on the contrary, they think that the government have abused the trust confided to them by the people, then they should vote to replace them by what they consider better men. In any case however, they should vote intelligently and as the result of their honest convictions and refuse to be led by the nose by political demagogues to whom these elections are simply a question of outs and ins.

No elector should shirk the vote; the franchise is the freeman's heritage, and a privilege not only to be proud of but one that should be exercised as a duty that each owes to their country.

## DO WE NEED A CANADIAN HOROLOGICAL SCHOOL?

Although Canada possesses a large number of good practical watchmakers, it also has a great number of very poor ones who are anything but a credit to their calling. We do not know of anything

that is more calculated to bring the craft into ill-repute than bad workmanship, and we think most of our readers will agree with us that anything that can be done to remedy this defect would be a very great benefit to the trade. We think it will be conceded that but little or nothing can be effected in the way of improvement among those bunglers who are at present living upon the gullability of the public, advertising themselves as "practical watchmakers." The reform, if we are to have any, will have to begin with the apprentices, and if the standard of workmanship and technical knowledge can be roused amongst them, we may hope in the near future to have more intelligent workmen and a better class of work. The cause for so many inferior workmen as we have at present is not far to seek; some are poor because, having picked up the trade without any assistance, they are almost ignorant of the first principles of horological science. They began, perhaps, by cleaning their father's clock or some antiquated watch, and having some aptitude for the work, finally developed into the full-fledged watchmaker that they now claim to be. This class, however, are not by any means the worst offenders, because as a rule they have aptitude and a love of the trade and only require competent instruction and supervision to make them first-class mechanics. The fact that some of our best practical workmen are self-taught is held by some to prove that the self-taught mechanics are by far the better craftsmen, but we think that these exceptions only serve to prove the rule, as they become good workmen not because of their disadvantages, but in spite of them. If these same workmen had possessed the advantage of competent instructors they would either have attained a greater excellence in their profession, or acquired their knowledge in a much shorter time than it cost them to master it.

But probably the larger number of these inferior workmen spring from the class that was regularly apprenticed to good masters. Sometimes the fault is that the apprentice has no aptitude for the business and it is only a waste of time for any boss to attempt to make a good watchmaker out of him.

When a boss finds that a boy has no genius for the trade he should try and induce him to give it up and get into something more congenial to his inclinations. There can be no greater mistake

than the supposition that anyone has brains enough to become a watchmaker; the fact is that watchmaking is one of the most exact of sciences, and it requires a mechanic of more than ordinary ability to insure success in this line. This fact is often lost sight of by parents who resolve to make one of their children a watchmaker because it is an easy and genteel business, and taking no account whatever of the boy's natural inclinations and capabilities.

A larger class than this, however, consists of those over-smart boys who have such large mechanical capabilities that they can learn any trade so simple as watchmaking in a few months. By the time they are able to clean a clock properly and have tried their hands with some tolerable degree of success upon some half score of cheap watches they know as much as their boss and don't see why they should continue any longer as apprentices when they are really first-class workmen, capable of earning the highest rate of wages by doing any kind of work from the repairing of a repeater watch to the manufacture of a chronometer. The result is that they launch out for themselves just about the time they should begin to be useful apprentices, and the amount of botch work they succeed in turning out is ample proof that their genius is of too elevated a character for such an ordinary occupation as watchmaking.

We said at the commencement that it would be hardly possible to effect any improvement in this class. Although probably not too old to learn, they know too much and instruction of any kind would be blown away upon them. This being the case, we think the only way to effect any improvement is to commence work upon the new material that is coming forward, and by means of highly trained and skillful workmen, force the incompetent out of the business. The only practical way in which we think this could be effected would be by the establishment of a horological school for this country. As the discussion of this would take a lengthy article in itself, we will reserve it until another issue, and conclude by merely saying that, in our opinion, the scheme is practical and well worthy of the consideration of the trade.

## Selected Matter.

### A NEW PROPOSAL FOR A HOROLOGICAL SCHOOL.

Our old friend, Mr. Aristarchus Plumbago, whose scheme for organizing a new watch company for the manufacture of "the Great American Demagnetized Hydrostatic Time Annihilator," was published in these columns some months ago, and which, for magnitude of scope and benevolent intention, stood without a rival among the beneficent propositions of the day. His time Annihilators were to be made for less than cost, and were to clothe the naked, christianize the heathen, father the fatherless, husband the widow, and in every conceivable manner confer blessings upon the human race. Plumbago, although in a chronic state of impecuniousness, is the champion philanthropist of the age; he is a whole missionary society in himself, with an orphan asylum and a charity hospital thrown in. In his own estimation, Peter Cooper's philanthropic enterprises are but side-shows to his, while these benevolent persons who have endowed colleges and built churches have done little to earn the praises of the public compared to what he proposes. Measured by his estimation of himself, he is the great humanitarian of the times, but not being fully appreciated in this degenerate age, he is usually regarded as the veriest Pecksniff among Pecksniffs.

But, as we remarked, Plumbago is in town; being in town, he naturally called to see us. After he had showered greetings and blessings upon us, we asked how he was progressing with the manufacture of the Great American Demagnetized Hydrostatic Time Annihilator.

"Ah! my friend," said Plumbago, while oleaginous tears trickled down his venerable nose, "this is a world of disappointments. Vexation of Spirit and petty persecution are the lot of the pure philanthropist and the unselfishly benevolent. It is a singular and remarkable fact that the American public did not respond to my appeal for funds with which to establish that enterprise in that spirit of liberality in which it was entitled to be received. You will remember I showed you a list of subscriptions amounting to \$100,000 or more, and stated that I had as much more promised. Alas! the result proved that the men who made those subscriptions were penniless adventurers, who gave their fictitious sub-

scriptions for the sole purpose of controlling the organization of the company, and electing themselves to the best offices. They had no money, but large expectations. As I had proposed, as the inventor of the scheme, to be president, secretary, treasurer and general manager of the company, their views were incompatible with mine, and the company was never brought into being. The only money we received was \$25, subscribed by an enthusiastic but extremely verdant country dealer. Those reckless adventurers insisted that I should divide that among them, but I refused, and reserved the amount to defray my own expenses. It cost me a front tooth and a discolored eye to retain that sacred trust fund, but I am thankful that my physical strength defeated the avaricious greed of those ungodly mockers of christian benevolence."

We commiserated Plumbago on the lack of appreciation bestowed upon him by a cold and unappreciative world, and asked him what he had been doing since the collapse of his watch company scheme, and what were his plans for the future.

"Well, I assure you, the world looked dark to me when my pet scheme proved a failure," replied Plumbago, "and I thought to retire from the hollow and deceiving world and become an Indian agent, but the administration at Washington declined to appoint me, owing to the bigotry and selfishness of certain religious advisers who surrounded the President at that time. The President was impressed with my personal appearance, but was vulgar and unkind enough to suggest that the inflamed appearance of my nose, the result of erysipelas, was due to other causes. My feelings were so lacerated that I left him in disgust, sorrowing over the insincerity and unchristian spirit to be found in high places. I next resolved to connect myself, as secretary or treasurer, with some of those benevolent societies organized by the different trades for relieving the distress of the orphans and widows of deceased members. I have understood that the officers of some of these societies had the handling of large sums of money, and I thought to make one of them cater to the demands of my carnal nature in exchange for my spiritual counsel and advice. But I found on inquiry that the offices of these societies were already filled by self-seekers who were making a worldly profit by their apparent benevolence, and there was no

place for me. In vain I worked up combinations to displace some of these men, that true philanthropy, as personified in me, might usurp their places, but in vain. The only reward I received for my labors was the scoffs and gibes of the unthinking, and an attack in a scurrilous newspaper, wherein I was designated as a 'gerrymandering dead beat,' a worldly phrase, as I am informed, highly uncomplimentary. I then engaged in the field of religious journalism, but because of some severe strictures I made upon an ungodly banker who did not advertise in my paper, I was persecuted for libel, and while undergoing the incarceration ordered by an unappreciative judge, my paper suspended for lack of that moral and literary pabulum I was in the habit of furnishing.

"It is a sad world, my friend, and we who are endowed with superior intellects, philanthropical instincts and empty purses are subjected to many and great vicissitudes. But I have now matured a scheme that is sure to be successful, and to win for me that fame and those pecuniary emoluments for which my soul has sighed so long and so vainly. The idea itself I derived primarily from THE CIRCULAR, but the development of its details, the expansion of the primitive thought to a magnificent conception, and its application to my own peculiar characteristics and necessities, is all mine—the result of the daily and nightly cogitation of this massive intellect. I learned from your columns that the great need of the watch jewelry trade to-day is a Horological School, where the principles of horology and their mechanical application shall be taught. Thus much I learned from you, but my experience taught me that the mechanics and artisans of to-day, and the youths who desire to become such, are walking in the devious paths of poverty. The highest acquirements of the human mind are impossible to one who suffers mental distress through the medium of a collapsed pocketbook. Neither is man susceptible of mental culture when he is oppressed with anxiety as to the future of his wife of his bosom and the children of his loins. Therefore I have conceived the brilliant idea of combining a horological school with a trade benefit society. I have already sent out prospectuses to the trade, and complimentary notices of the undertaking have appeared in several papers. The title I have selected for

this enterprise I consider to be a stroke of genius. It is, 'The Excelsior Academy of Horological Science and Applied Art in Jewelry, and the Horologists' and Jewelers' Vade Mecum Contributive Benevolent Institution.' The title is rather long for rapid pronunciation, but it looks well in advertisements and letter heads. This is to be a stock company, and none but persons connected with the watch and jewelry trade will be permitted to buy shares unless they desire to. The capital stock is fixed at \$1,000,000, in \$100 shares, of which \$1 is to be paid in when the stock is subscribed for and the remainder in \$1 instalments as called for by the president. I am to be president; also secretary, treasurer and general manager of the institution, as well as instructor in the various branches that will be taught. There is no doubt but that the trade will greedily seize upon this idea and send in their subscriptions. The establishment is to be located at Chicago, now the centre of the earth as well as of civilization, culture and refinement; from this great centre radiates all that is worth knowing of this life or the life to come. An enterprising publisher of that city has already placed a fourth story loft at my disposal, in consideration of which I gave him favorable mention in my circulars. I propose to teach there the entire science of horology and all that is desirable to know regarding the art of making jewelry. Watchmakers can come to me and perfect themselves in the knowledge of the art, and young men will be taught everything connected with the jewelry trade and watchmaking for the modest sum of \$5 a month. It doesn't matter that I don't know anything about the business; there are lots of elementary works on the subject which I can re-write in the form of lectures. Then I expect manufacturers to furnish the Academy gratuitously with machinery and appliances. In a month or so I expect this great institution of scientific and artistic training to be in excellent working order. The benevolent branch of this concern will, no doubt, prove the most profitable. In the prospectuses I promise to pay \$1,000 to the widow and children of any contributor or subscriber to the institution, and in case of the sickness of any member I promise \$20 a week. This looks well on paper, and will unquestionably bring many subscriptions to the stock of the institution. Of course, as I am to run the whole affair,

my compensation will have to be liberal; the tuition fee will naturally come to me, and I can also disburse the fund subscribed for stock. I shall not be required to make any report of receipts and disbursements, and shall not be accountable to anyone. I have provided for this in the constitution and by-laws. In fact I regard the constitution and by-laws as something unique and original. They provide that a board of directors shall be elected by the charter members; I am the charter members, having used the names of three or four friends for this purpose; the board of directors elect the officers, and I am chosen president, secretary, treasurer and general manager. It is provided that when this is done the board of directors shall be superseded by the officers, that's me, and all reports of officers (that's me) are to be made to the board of directors (that's me). This prevents all impertinent intermeddling on the part of stockholders. If any of these complain or ask how their money is being used, I will reply that the institution is necessarily costly, but it should be sufficient for them to know that they have been allowed the distinguished honor of helping to maintain an Academy of such character and influence. This scheme I regard as the greatest effort of my life, and one calculated to bring to me that ease and comfort that I have so long pined for. Of course, we shall have a newspaper connected with the Academy for circulation in the trade, and as I shall be the editor of it, its influence will be thrown in favor of the Academy, and the trade can always be assured of receiving glowing accounts of its success. The trade will pay liberally for advertising in such a paper, and this will be another source of revenue. My circulars were sent out last week, and favorable responses begin to come in already. Yesterday I received \$1 for subscription to the stock, and this I shall invest at once in a few beer glasses to furnish the Academy with. In short, this great education institution may be considered as open for business. I return to Chicago to-night, to enter upon my duties as Professor of Horology and Kindred Arts, and custodian of all funds contributed towards the founding and maintenance of The Excelsior Academy of Horological Science and Applied Art in Jewelry, and the Horologists' and Jewelers' Vade Mecum Contributive Benevolent Institution.

From time to time I shall address you from that city, and keep you informed as to my public and private enterprises."

With these words Aristarchus Plumbago, the great philanthropist and modern humanitarian, smiled benignantly upon us, and took his departure, first having secured a small loan to enable him to keep an appointment with a pawnbroker. —*Jewelers' Circular.*

### BURNISHING.

By burnishing, the roughness of an object is flattened down until the surface is smooth and polished like a looking glass. Burnishing is an important operation for electro deposits, which consists of a multitude of small crystals, with intervals between them, and with facets reflecting the light in every direction. The deposited metal is hardened and forced into the pores of the underlying metal, and the durability is thus increased to such an extent that, with the same amount of silver, a burnished article will last twice as long as one which has not been so treated. The instrument employed for burnishing are made of different materials, and must be of great hardness and a perfect polish. Such are hardened cast steel, agate, flint, and bloodstone. For metallic electro deposits steel and blood stone are especially employed. There are several qualities of blood stone; its grain should be close, hard, and without seams or veins; it should leave no white lines on the burnished parts, nor take off any metal, and its color should be of an intense black red. The steel must be fine and close grained and perfectly polished. Should the polish of any burnishing tool alter by use, it is restored by friction upon a skin or leather attached to a wooden block, which is fixed to the bench. The leather is covered with polishing rouge impalpable powder, or, preferably, with pure alumina, obtained by calcining ammonia alum in a forge fire. Venetian tripoli, rotten stone, tin putty, emery, or many other hard substances finely powdered may be employed. The burnishing tools are of various shapes, such as a lance, a tooth, a knife a half sphere, or a dog's tongue, and a considerable stock is necessary. The burnishing is divided into two distinct operations. The first consists in roughing, and the second in finishing. The tools for the first have a sharp edge, while for the

second operation they have a rounded surface. The tools for the hand or the lathe are fixed by copper ferrules into short round wooden handles, so that the hand is not influenced by their weight. The tools for the arm or vise are fastened to wooden handles sufficiently long to rest their slender part upon the arm or shoulder. The stouter lower portion is grasped by the hand. The burnishing tools and the objects must be frequently wetted by certain solutions some of which facilitate the sliding of the instrument, or with others which have a chemical action upon the shade of the burnished articles. Of the first are pure water, solutions of soap, decoctions of linseed, and infusions of the roots of marsh mallow or licorice. The second includes wineless, cream of tartar, vinegar, alum in water. When burnishing gold applied upon electro deposits of copper, as is gilding with a dead luster by that method, use pure water, for fear of producing a disagreeable red shade. A solution of green soap is some times preferred by operators, although when old, it imparts an unpleasant tinge, owing to the sulphides of the liquor. When the burnishing is completed, the surface is wiped longitudinally with a soft and old calico rag. The polish obtained by burnishing is called black when it reflects the rays like a mirror, and should the presence of mercury or a bad deposit prevent the tool from producing a bright surface, the object is said to be greasy. Articles which have been previously polished, and which generally receive a very trifling deposit, are not burnished, but rubbed with chamois leather and the best polishing rouge. Too thick or too rapid electro deposits cannot be burnished, but must be polished by rubbing with a leather and a mixture of oil and powdered pumice stone, tripoli, or tin putty. Coarse powders are used at the beginning, and impalpable ones at the end of the operation. Polish silver deposits are more agreeable to the eye than burnished ones, but the hardening of the latter renders them more durable.

### HOW MOSAICS ARE MADE.

It is said that in a portrait of Pope Pius V. there are 1,700,000 pieces, each no larger than a grain of millet. The enamel is a kind of glass, colored with metallic oxides, and it is so fusible that it can be drawn out into threads, small

rods, or oblong sticks of varying degrees of fineness, slightly resembling the type used by compositors. These polychromatic rods are kept in drawers properly numbered, so that the artist always knows to which case to repair when he requires a fresh supply of a particular tint or tints. When the picture is commenced the first step is to place on the easel a slab of marble, copper, or slate, of the size fixed upon; and this slab is hollowed out to a depth of three and a half inches, leaving a flat border all round, which will be on a level with the completed mosaic. The excavated slab is intersected by transverse grooves or channels, so as to hold more tenaciously the cement in which the mounts of enamel will be embedded. Then the hollowed slab is filled with "gesso" or plaster-of-Paris, on which the proposed design is accurately traced in outline, and usually in pen and ink.

The artist then proceeds to scoop out a small portion of the plaster with a little sharp tool. He fills up the cavity thus made with wet cement or "mastic" and into this he successively thrusts the "spicula," or the "tessera," as the case may be, according to the pattern at his side. In the broad folds of drapery, or in the even shadows of a background, or a clear sky, his morsels of enamel may be as large as one of a pair of dice; in the details of lips, or eyes, or hair, or foliage, or flowers, the bits of glass may be no larger than pins' heads. The cement, or mastic, is made of slaked lime, finely-powdered Tiburtine marble, and linseed oil, and when thoroughly dry, is as hard as flint. Sometimes the mastic which fills the cavity is smoothed and painted in fresco with an exact replica of the pattern, and into this the bits of glass are driven, according to tint, by means of a small wooden mallet. If the effect produced wounds the artist's eye, he can easily amend the defect by withdrawing the offending piece of enamel and driving in another while the cement is still wet; and, by observing proper precautions, it can be kept damp for more than a fortnight. When the work is completed any tiny crevices which may remain are carefully plugged or "stopped" with pounded marble, or with enamel mixed with wax, and the entire surface of the picture is then ground down to a perfect plane, and finally polished with putty and oil. Byzantine may be broadly distinguished from

Roman mosaic by the circumstances of the surface of the former being left unground and unpolished—save where there is burnished gold—thus leaving an irregularity of surface productive of great vigor of effect. A virtuous picture of the Byzantine style can at once be recognized as a mosaic, even if it be hung at an altitude of one hundred feet from the ground; but a perfected mosaic picture, after the Roman manner, might easily be mistaken, even at a very short distance, for a very elaborately finished and highly varnished painting in oils.—*London Telegraph.*

### BORROWED JEWELS.

A writer in *All the Year Round* says: "Turkish ladies are at least as extravagant as their European sisters, and even more thoughtless than the most foolish of them. In these times of the decadence the majority have parted with their gems and finery, and when a marriage takes place, a feast, or what not, they hire valuables for the ceremony at monstrous interest. Some twelve months since the system, and the abuses it necessarily carries, were displayed in a famous case. Hairie Hanoum, wife of Mizhet Effendi, ex *desterdar* of the villayet of Broussa, was charged with obtaining money and jewels under false pretenses. Occupying a good house, where she dispensed a princely hospitality, she made it a business to hire valuables from the female dealers, which she immediately pledged in the bazar; or she hired in the bazar and pledged in the harem. Sometimes the jewels were needed to deck herself and her slaves at a grand ceremony; sometimes she pretended a visit to the imperial princesses. The prisoner also borrowed articles from people of the first rank, such as the wives of Essad and Huesin Beys, the daughters of the governor-general of the villayet of Hedjaz, and even from the daughter of Muchir Safvet Pasha. The important element of this detail is her emphatic declaration that all these great ladies either took money in the shape of interest, or actually 'stood in' with her, receiving a proportion of the sums for which she and her slaves immediately repledged the objects which Hairie Hanoum pledged with them. The lady carried on her little game for many months, redeeming some pledged their ornaments. In particular

she alleged that the family of Muchir Safvet made a regular business of hiring out their jewels when he was from home. These statements, of course, were vehemently denied, and the judges appear to have passed them over with as brief notice as possible. As for the transactions with regular female brokers, they prove to be a maze of in-and-in dealing. These articles by the cash obtained upon newer loans. But the enormous interest finally swamped her. At the moment of arrest she was found in possession of five diadems, thirty-six jeweled plaques of medallions, eight aigrettes of brilliants, one gold watch and chain, two half diadems, seven pairs of brilliant ear-rings, three jeweled lockets, one bracelet, six diamond pins, five valuable rings, four brooches in brilliants or rose diamonds, one bouquet with jeweled leaves of flowers, one brilliant crescent, two valuable ancient robes. The whole was set down at over £5,000 Turkish—about £4,500. Hairie Hanoum was convicted. I forgot her sentence. But the foolish system which encourages a swindle like hers is unchecked. In the lower ranks of life it produces every form of immorality, as a sensible man of the world needs not to be assured."

### THE GOOD OLD TIMES.

The complaint that money will not go so far in our generation as it did a generation ago, is frequent enough, although the compensating truth that money on the whole, is made more quickly nowadays than it was formerly, is not so frequently dwelt upon. The general sinking of the value of money was most instructively and pleasantly illustrated in a paper read by M. Avenel a few days ago, in Paris, before the Academy of Sciences. His subject was confined to the period of Louis XIII.—1610 to 1648. A tolerably brilliant housekeeping, with ten servants, could be easily managed, as M. Avenel tells us, upon a yearly income of 12,000 francs. This is proved by the account books of Cardinal Richelieu's niece, Madame de Pont Courbay, who had exactly that income, and maintained herself, her two daughters, and no fewer than sixteen servants in the style corresponding to the high place and power of her eminent kinsman.

A nobleman with a revenue of 100,000 francs was held to be amazingly wealthy.



This was the *appanage*, M. Avonel says, of Gaston the King's brother, and also of the Duc de Rohan. The Constable de Montmorenci, the richest nobleman in France, gave his daughter only 800,000 francs as her dowry. Queen Henrietta Marin, the wife of Charles I., only brought about 800,000 francs into her English home as her wedding grant. The rents of the most splendid houses in Paris were extraordinary low—measured by the scale of two centuries later. Then the English Ambassador in Paris only paid 2,000 francs a year for the hire of his imposing hotel.—*Exchange.*

### BUSINESS CHANGES FOR JUNE.

Anderson, A. C., & Co., Hamilton, dissolved. Dr. Dillabough withdrawing, A. C. & W. Anderson continue under old style; Boyd, Watson & Co., London, Fancy Goods, dissolved, business continued by Watson, Young & Co.; E. Maycock, Winnipeg, stock slightly damaged by removal and water; Jno. Scanlan, Bridgen, Hardware, removed to Forest; W. C. Fox & Co., Toronto, Jewelry, Bailiff in possession on Landlord's warrant; C. A. Davidson, Watford, Watchmaker, sold out, R. Wilkinson, Toronto, Stationer, sold out to J. S. Robertson & Bro.; Chinie Bro., & Lynch, Palmerston, Hardware, dissolved, Wm. Lynch continues alone; Elliot & Knott, Palmerston, Hardware, dissolved, Elliot retiring, style now Lurs, Knott & Co.; W. A. Bunghurt, Delaware, Furs, has removed to Oil City. Moodie, H. R. & Co., Winnipeg, Fancy Goods and Auctioneers, stock sold by Sheriff.

### BUSINESS NOTES.

The jewelry store of T. G. Lowe & Co., in Windsor, was entered on Saturday night, and a large amount of jewelry taken.

Mr. W. G. H. Lowe, of the firm of Zimmerman, McNaught & Lowe, sailed for Europe, via New York, by the White Star steamer "Adriatic." He expects to return about the middle of July with the choicest novelties in jewelry that the English and Continental markets can supply.

Mr. A. C. Anderson, of the firm of A. C. Anderson & Co., of Hamilton, sailed for England last week on business for his firm. We wish him a prosperous trip.

SENEX, BRITISH COLUMBIA.—Your letter just received as we go to press, too late for this number. Will appear in next. Pleased to hear from you—come again.

An advertisement reads: "Wanted—A young man to be partly out-door and partly behind the counter;" and the *Cleveland Leader* asks, "What will be the result when the door slams?"

We regret to learn that Mr. W. F. Carrier, of the firm of Carrier & Marshall of this city, has been laid up with a severe attack of erysipelas in the head. His many friends in the country will be glad to hear that he is rapidly recovering, and expects soon to be about again.

A CERTAIN Chicago vessel captain was complaining recently that he had invested some money on 'Change and lost it all. A sympathizing ship- Chandler asked him whether he had been a "bull" or "bear" to which he replied; "Neither, I was a jackass."

Mr. SAMUEL STERN sails this week for Germany, on his annual buying expedition. As usual he will ransack the Continental markets for anything new in fancy goods and clocks, and his customers may depend on his being as far to the front this season as usual in his special lines.—A pleasant trip Samuel.

We were pleased to receive a visit the other day from our esteemed friend, A. H. Doran, of Emerson, Manitoba, who was passing through Toronto on his way to his home in the Gateway City. Mr. Doran thought that while the water was subsiding in Emerson, he would visit Ontario and take unto himself a partner; this he accomplished successfully, and we had the pleasure of offering the newly married pair our congratulations.

A MONTREAL dealer in paints, &c, one B. B. Deacon, has failed, and is offering his creditors fifty cents on the dollar, but they demur, believing the estate could realize much more. He owes \$5,000, and shows business assets of about \$4,000, besides which he owns real estate that he values at \$8,500, mortgaged for \$7,500. The creditors think the real estate worth more than the price put upon it by Mr. Deacon, and are getting it revalued. The attempt to carry on two stores, and over investment in property are the cause of his troubles.

In reference to the letter signed "Reader" sent us about ten days ago, we cannot possibly publish such a communication. "Reader's" best plan would be to put his case in the hands of a good lawyer, if so, we think he could recover, as we believe the party he refers to is now in business in Hamilton. We are down on swindlers and dead beats of all descriptions, and shall always be ready to aid in exposing them, but we cannot publish anonymous communications, in all cases we must have the authors real name and address as a guarantee of good faith. If "Reader" will communicate with us by letter, we shall be happy to assist him.

A crock in St. Catharines has hit upon a novel plan by which to collect bad debts. So soon as a customer becomes dilatory in payment of grocery bills, and shows indisposition to settle, the grocer sends round a boy with a big bell. The boy stops in front of the delinquent's residence and rings the bell vigorously. He is soon told to go away, but never takes the hint until the discovery is made that it is the grocer's boy "who has come to stay" and to keep up the infernal clang of his bell. "The result has been, so far, says the *Journal*, in every case that the debtor has come in a very indignant frame of mind and settled up. He don't want the neighbors to get the idea that the ringing of the bell means a bailiff sale going on in the house." It may possibly be found, however, that the customer so dunned may get even with his tormenter by taking proceedings against him for creating a nuisance by his bell-ringing. Even slow-paying purchasers, provoking as they often are, have

rights, and we suspect that one of them is that of protection from any such ear-splitting insults as those described.


THE Montreal detectives are engaged in trying to find the perpetrator of an extensive robbery that took place a few days ago in the establishment of Louis Albert, a pawnbroker doing business in Notre Dame street. The total loss is about \$5,000 in money and valuable goods. About seven o'clock in the morning a grandson of the proprietor, who is accustomed to open the store, found the front door open and the key in the door. He at once gave the alarm, and after a short search it was found, that the safe had also been opened with a key, and about \$1,600 in cash, and about \$2,000 or \$3,000 worth of goods, consisting of diamonds and other precious stones, rings, watches, chains, and other articles of jewelry, stolen. Further investigation showed that the robbery had been perpetrated by some one who was well acquainted with the premises; and suspicion at once fell upon a member of the family living in the house. The party suspected is under surveillance, but no arrests have yet been made. Another warning as to the utter worthlessness of key-locking safes. Will it do any good.

THE case of E. Freudenberg, jeweler of Ottawa who mysteriously disappeared some months ago, is at present attracting considerable attention on account of the action of Messrs. P. W. Ellis & Co., Wholesale Jewellers of this city. This firm finding that Freudenberg had disappeared, taking with him all his available funds and some of his stock, attached the balance of his stock as security for their account. After being absent some three months Freudenberg returned, and finding Messrs. Ellis & Co. in possession commence an action against them for unjust attachment of his stock, stating that he had only been home to Holland on a visit. The first case was decided in favor of Messrs. Ellis, after which Freudenberg carried it to a higher court. Judgment in this appeal was given last week, the Master in Chancery decided that the Messrs. Ellis, were perfectly justified in their action. It seems very strange that any merchant should disappear so strangely that, even his wife did not know of his whereabouts, and still try to set up the plea that he had only been visiting his native place on pleasure. If he had so intended he should at least have notified his creditors and made some provision for the accounts maturing during his absence.

THE warerooms of Lee & Chillas, wholesale jewellers, are situated in the Royal Insurance buildings, corner of Wellington and Yonge streets. They open off the general hallway on Wellington street, and consist of one large and one small room. From the former to the latter there are two entrances—one from in front of the counter, and the other from behind. On Thursday last, Mr. Lee was sitting alone in this smaller room making up the deposit for the day, when two men came in and asked him if they could see some gold chains. Mr. Lee enquired if they were in the business, explaining that his firm sold to the trade only. They replied that they were in business in Ottawa. Mr. Lee then rose, passed through the door into the larger room, and stood



14 AND 18 KARAT GOLD WATCH CASES,  
 MANUFACTURED BY  
**THE AMERICAN WATCH CO.,**  
 OF WALTHAM, MASS.

All Cases of our Manufacture are Stamped  which indicates that they are manufactured by the American Watch Company.

We are informed that cases are offered to the trade stamped W. W. Co. This is evidently done with the intention to deceive and further the sale of inferior cases. There is no Waltham Watch Co., but the name is used by us as a registered trade mark on a well known grade of movement.

**AMERICAN WATCH CO.,**

ROBBINS & APPLETON,

General Agents,

NEW YORK.



behind the counter. When he got behind the counter the strangers were just coming out of the other door, one about a yard behind the other. Some chains were produced, and while the strangers were examining them and asking the prices a customer came in, and the supposed jewellers said they would call again. Mr. Lee then became engaged with the customer. After transacting business with him he returned to his private office, and at once saw that his intended deposit had disappeared. The whole amount was \$800, \$275 of which was in cash and the remainder in cheques. Payment of the latter was stopped, and the police notified of the robbery. Just as we go to press we learn that three men, supposed to be the thieves, have been arrested at Kingston and brought to Toronto. Mr. Lee has identified two of them as the parties who wanted to see the gold chains at the time the money was stolen, and the magistrate has remanded them for one week, refusing bail.

**WORKSHOP NOTES.**

**POWDER FOR SILVERING.**—To 16 parts melted tin add an equal quantity of mercury, rub it well together, and with it mix 125 parts prepared hartshorn. Any metal rubbed with this will take the appearance of silver.

**AN EXCELLENT GERMAN SILVER** is prepared by melting in a crucible 55 parts copper, 23 nickel, 17 zinc, 8 iron and 2 tin. This composition is in every respect equal to silver in appearance, fully as hard, and not vitreous.

**ARTICLES** which do not require much handling, may be quickly gilt without battery as follows: 1 part of chloride of gold and 4 parts cyanide of potash are dissolved in boiling distilled water, and the gilding fluid is ready; the articles are hung into this hot solution tied by a fine copper wire to a strip of zinc, scratched clean, left in it for a few minutes, and they will be handsomely gilt.

**CEMENT FOR GLASS AND METAL.**—Every one who uses brass letters on glass windows, and knows how often they tumble off from unequal expansion, or from the too energetic efforts of window-cleaners, will be glad to have the following receipt: Lanthargo, 2 parts; white lead, 1 part; boiled linseed oil, 3 parts; gum opal, 1 part. Mix just before using. This is said to form a quick-drying and secure cement.

**ALLOY FOR FROM 8 TO 18 KARAT GOLD.**—6 karat: 6 parts fine gold, 6 fine silver, 12 copper; 8 karat: 6 fine gold, 5½ fine silver, 10½ copper; 10 karat: 10 fine gold, 4½ fine silver, 9½ copper; 12 karat: 12 fine gold, 4 fine silver, 8 copper; 14 karat: 14 fine gold, 3½ fine silver, 6½ copper; 16 karat: 16 fine gold, 2½ fine silver, 5½ copper; 18 karat: 18 fine gold, 2 fine silver, 4 copper.

**TO HARDEN STEEL TOOLS.**—The practice is common among the engravers and watchmakers of Germany of hardening their tools in sealing wax. The tool is heated to whiteness and plunged into the wax, withdrawn after an instant and plunged again, the process being repeated until the steel is too cold to enter the wax. The advantages claimed for this method are that the steel becomes almost as hard as the diamond, and when touched with a little oil or turpentine, the tools are superior for engraving, and also for piercing the hardest metals.

**TO CLEAN** casts of gypsum (plaster of Paris) bas reliefs, etc., which has stood for a long time and become dirty and dusty, several methods are employed, all of which, however, tend to injure the sharp corners of the cast, and occasion loss of time. The writer was called upon to do much of this work, and he hit upon the following excellent expedient: Boil of starch a thick paste, and spread it over the article to be cleaned, with a soft brush. Expose it to an airy place, and when dry, the paste will peel off, together with all the dirt and dust, and the cast will appear as white as when new.

**GILDING STEEL.**—Polished steel may be beautifully gilded by the means of the ethereal solution of gold. Dissolve pure gold in aqua regia, evaporate gently to dryness so as to drive off the superfluous acid, re-dissolve in water, and add three times its bulk of sulphuric ether. Allow it to stand 24 hours in a stopped bottle, and the ethereal solution of gold will float on top. Polished steel dipped in this is at once beautifully gilded, and by tracing patterns on the surface of the metal with any kind of varnish, beautiful devices in plain metal and gilt will be produced. For other metals the electroic process is best.

**TO TEMPER CIRCULAR SAWS AND THIN STEEL DISCS.**—Thin steel plates can be well and evenly tempered, by slowly heating them until red-hot in a wood fire, kept bright with the bellows. Two metal sheets or plates of a larger size than the steel must be lying ready, on one of which cold water has just been poured. Transfer the red-hot steel plate from the fire to the wet plate, and an assistant must be ready to lay the second plate immediately on top of the steel.

**TO PROTECT METAL WARES.**—Polished articles of iron, steel, bronze or brass, are best protected against rust or dimming by polishing them with joiner polish and linseed oil, in the same manner as joiners polish wood. This procedure is adapted for all manner of highly polished metal wares, and especially for piano strings. The knack is easily learned. If a little saffron is added for brass, it will receive a gold-like appearance. This must not be mistaken for the common way of "varnishing," by means of a brush. The inequality of such a coating is always disagreeable to the eye, while the other manner cannot even be recognized by expert eyes.

**THE FAVORITE** black tone, the so-called oxidizing on silver, is produced in different ways, either with chlorine or sulphur. The latter gives a bluish black, the former a brown tone. If a deeper black is desired upon the finished article, either of silver, bronze, brass or copper, and silver plated, I use sulphuret of potash (liver of sulphur), which I dissolve in distilled water and warm a little; if the tone is desired to be more of a brown, I use sal ammoniac and sulphate of iron in equal parts, dissolve in vinegar. But the easiest method, and sufficient for common demands, is to rub the article to be colored with sal ammoniac, and the black color is immediately produced. Should a larger surface become spotted, or uneven in color, brush it with graphite. Mr. Kamarski says, in order to coat silverware with a dark gray color, and to produce the so-called oxidized silver, immerse the manufactured and polished article in a very weak solution of sulphuret of potash and water, to which add a little sal ammoniac; when the desired color is produced.

rinse in clean water, dry and finish by polishing, which with sufficient care, may be done. The thus produced gray color forms a very pleasing contrast for articles which are partly gold or gilt.

**TO MAKE CROCUS.**—Take sulphate of iron in quantity to suit, break it into small pieces, and put into a clean iron heating-pan, which place upon a gentle coal fire. The sulphate will soon become fluid, and part with its water of crystallization, but become dry little by little. It thus loses its green transparent color, but will turn into a whitish opaque mass. Now increase the heat under the pan, and constantly stir the mass with a rod, taking care not to let anything adhere to the pan. It will gradually assume a darker color until it becomes red. Stir it well and see it be uniformly red and heated, then remove the pan from the fire and let it cool. When cold rub the mass fine in an earthen or porcelain vessel, pour boiling water upon it and let it stand for a day; then decant and add more boiling water, stir well and let it stand for another day, when decant and replace it by fresh. Stir again, and let settle for a few minutes, until the coarse iron-containing powder has settled. Now pour off all the fluid down to the dregs into another vessel, let it stand in this for several days until the fine powder has settled and the water has become clear, which then pour off and dry the powder in the air; but not by the fire, powder dried by the fire scratches. The red powder thus obtained is ready for use, preserve in a dark place.

MEASURES OF CAPACITY.		Wine Measure.	
No. Liters.	Dry Measure.	Avoirdupois weight	weight
Weight of what quantity of water at maximum density.			
Gram.....	1 cubic centimeter	15.432 grs.	
Decigram.....	1 cubic centimeter	1.5432 grs.	
Centigram.....	10 cubic millimeters	0.1543 gr.	
Milligram.....	1 cubic millimeter	0.0154 gr.	

STANDARD WEIGHTS OF UNITED STATES COINS.	
Double Eagle, \$20 gold.....	516
Eagle.....	129.9
Half Eagle.....	64.95
Quarter Eagle, 2½.....	32.475
Three Dollars.....	77.16
One Dollar.....	38.58
Trade Dollar, silver.....	412.5
One Dollar.....	412.5

**SCIENCE NOTES.**

In 1807 wooden clocks began to be made by machinery. This ushered in the era of cheap clocks.

The Society for the Encouragement of Home Manufactures (France) has offered a prize of six hundred dollars for the best article sent to them describing the materials used in watches "like those made in America."

# IMPROVED CROWN FILLED CASE.

The Smallest,  
most Compact,  
and Symmetrical



Filled Gold Case  
ever offered  
to the Trade.

SUPERIOR QUALITY. SUPERIOR FINISH.

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*The Representative Organ of the Watch, Jewellery and Kindred Trades in the United Kingdom.*

It is full of original information and thorough practical instruction contributed by the leading writers on the various subjects connected with the above trades. The text is well illustrated by wood-cuts, and two supplements of artistic designs for jewellery, etc. accompany each number.

This important Trade Organ, now in its seventh year of publication is in the hands of every British Watchmaker, Jeweller and Silvermith, and is therefore a most valuable medium for manufacturers requiring publicity in Great Britain.

Our list of permanent contributors includes such names as: J. U. Poole, Richard Whitaker, Henry Ganney, Moritz Grassmann, J. Herrmann, E. J. Watherston, W. H. Singer, an ample guarantee for the sterling value of the journal. Subscription 5s. per annum.

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Manufacturing Jewellers, Gold and Silver Platers, and

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Canadian Agates, Amethysts, &c., polished and Mounted for the trade. Store keepers in town and country will find all work good at moderate prices.

N. B.—Always on hand a stock of Stones, Imitations, Locket Glasses, &c. Unsurpassed in the Dominion.

A PAPER watch has been exhibited by a Dresden watchmaker. The paper is prepared in such a manner as to render the watch as serviceable as those in general use. Attempts have been made in this country to establish watch companies made of paper but the schemes did not work.

So microscopically perfect is the watchmaking machinery now in use that screws are cut with near a *million* threads to the inch—though the finest in the watch has 250. These threads are invisible to the naked eye, and it takes 144,000 of the screws to weigh a pound, their value being six pounds of pure gold.

A LONDON repairer of watches loaned a gentleman a watch until his own could be mended. The spring of the loaned watch broke. Commissioner Kerr, of the City of London Court decided that the wearer was not responsible. Said he, "I don't care about trade customs; I am here to administer the law."

BRACELETS of old coin are all the rage, and some of the coins purchased at the notable sale in New York a few days ago, are already dangling from ladies' wrists. Some of the prettiest coin bracelets are those of American gold one, two and a half, five, and ten dollar pieces, and nearly all the girls of the period have a pair.

Should you ever happen to encounter a watchmaker who after making an investigation of your family turnip says: "My dear sir, there is nothing the matter with your watch; it does not even need cleaning," set that man down as one who will never rise to eminence in his profession or become a millionaire.—*Commercial Advertiser*.

A NEW HOROLOGICAL SCHOOL.—The horological industry has received a great impulse in the Jura, Switzerland; several projects are on foot tending to perfect its products, and to ameliorate the condition of the workman. The project is agitated of instituting a school of horology at Porrentruy and l'Hopital, in the Canton Berne.

MOTIVE FORCE.—A company in Paris at present supplies motive power to small shops and families by means of vacuum. It has already constructed a line of about 700 meters, and furnished force to several small shops. A powerful machine, with air pumps creating a vacuum of about three-fourths atmospheres, furnishes the exhausting power.

TELEPHONE.—While the telephone does not meet with its full deserved success in Europe, the Chinese have seized upon it with great avidity. The circumstance that each Chinese word has a separate word sign hindered the *queued* inhabitants of the flowery kingdom from using the telegraph, but the telephone, on the contrary, also speaks Chinese!

NECROTEL.—A Swiss watch manufacturer some time ago was sued for fraud, having sold a 7-karat gold watch case for 14-karat. Six watch case manufacturers from Locle were present as witnesses, and acknowledged freely and openly that this species of fraud had existed for years, and they could not understand why suits should be instituted for such a trifle. The manufacturer was sentenced to one month's imprisonment.

GOLD TURNED INTO VAPOR.—E. W. Morley, of Hudson, Ohio, lately exhibited two slides, each of a specimen of the metallic globules said to be gold, from the roof of the Mint at Philadelphia. These were examined with a two-third objective, and Prof. Haaks stated that his examination and treatment of them with acid showed conclusively that gold would become volatilized, and no doubt pass off in the fumes from the retort.

RECKONING OF TIME BY CHINESE.—Little note is taken by the Chinese of the flight of time; they date their common events by "the year of the great snow storm," or "in the night that the white cow was born." Larger towns have sun dials, and the hours are sounded on large drums at the principal places. The mandarins and well-to-do people have lately affected not one, but a pair of watches, of the costliest Switzerland or France is able to produce; a child born at eleven o'clock, December 31, 1880, is, at one minute past twelve, one year old; he was born in 1880, *ergo*, he must be one year old in 1881.

AN amateur was chaffering about the price of a table service in Dreadon china. "But it is much too dear! There is not a single piece in it which has not been mended." The dealer has his answer pat. "My dear sir," he says, "why that is the very thing that makes the set valuable. This is the table service that Bonaparte broke when he kicked over the preliminaries at Leoben!" The amateur, a little taken aback by this thrust, says: "Are you perfectly sure of that?" "Certainly I am. Would you like the same service without its being mended? I have that also."

PROFESSIONAL SCHOOLS.—Paris counts at present four large schools, in which young boys having an elementary instruction, may acquire a trade. Each day, the children, aged from eight to nine years, pass several hours in the shops, and, beside, are taught theoretical principles, designing, and modeling. The Municipal School of Apprentices, at Villette, offers the opportunity to boys of the age of thirteen or fourteen, to choose a profession best adapted to their tastes and capacity. For this purpose, they may, during the first year, change from trade to trade, without troubling themselves about material ruined, and at the expiration of twelve months, are required to make their final choice. This plan of study consists of five hours per day devoted to instruction, and six hours passed in the shop. It is difficult to imagine a better system of obtaining superior and intelligent workmen.

## NICKEL SHOW CASES FOR SALE.

In consequence of their removal the undersigned have for sale Very Cheap, Five First Class Nickel Show Cases, made by Millichamp, of Toronto. The Cases are square shaped, 12 feet long, 30 inches wide, and 20 inches deep, with Handsome Stained Stands. Are suitable for Fancy Goods or Silver ware. Cases and Stands cost \$116. Will be sold for \$80 cash.

Can be seen at the Warehouse of

ZIMMERMAN, McNAUGHT & LOWE,  
16 WELLINGTON ST. EAST, TORONTO.

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Is the official Journal of the  
Watchmakers and Jewellers,

of the North west,  
CONTAINING 56 PAGES OF  
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Whose columns are replete with choice articles upon Horology, Watch-making and repairing, written for this Journal by practical and scientific men, also a large amount of general information of vital importance to the trade; also continued articles, or lessons in letter engraving, written by a celebrated engraver of this city. Subscription price, \$2.00 per year. Single copy, 20 cents.

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SETH THOMAS, WELCH,  
GILBERT, AND ANSONIA,  
INGRAHAM.

I keep these Clocks in every style now manufactured, and show 200 different varieties of samples, besides Regulators of all kinds.

I will sell, only to the Trade, any of the above makes of American Clocks at prices lower than any house in Canada, and will guarantee to meet any competition either in quality, style or price. Also a large variety of Ladies and Gent's Swiss Watches, Gold, Silver and Nickel Cases, Key and Stem Winders.

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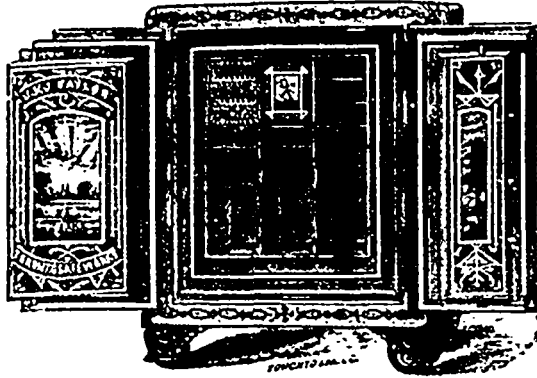
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**20 YEARS ESTABLISHED.**

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WHOLESALE JEWELLERS, HAMILTON.

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**EXTRA FINE ROLL PLATE GOODS,**

OUR BEST QUALITY STAMPED AND GUARANTEED.

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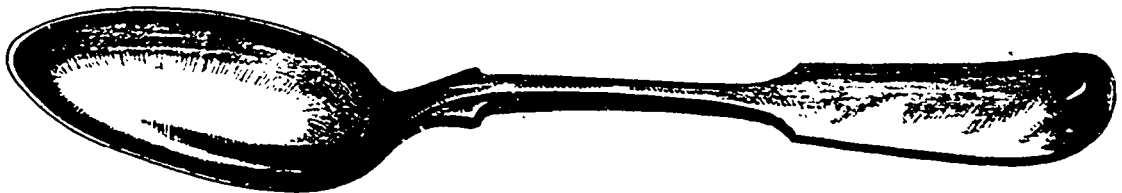
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The best unplated flat-ware ever manufactured.

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Every dozen done up in guarantee wrapper. They are the best goods for Dealers to handle because

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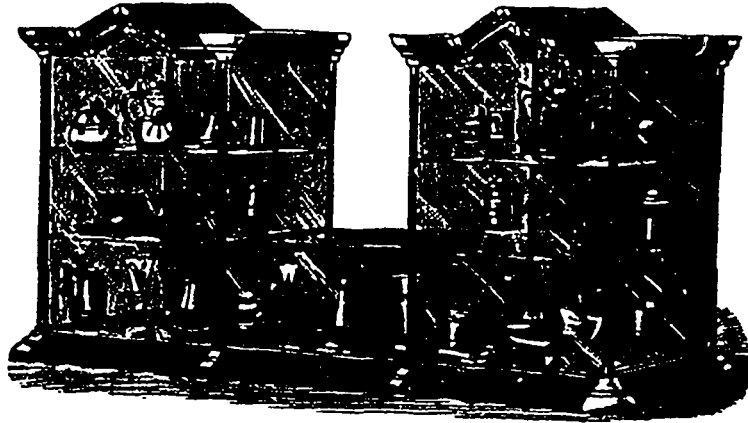
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SHOW

SHOW

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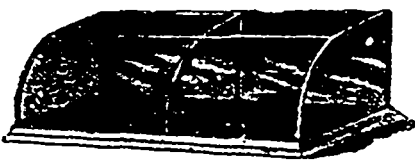
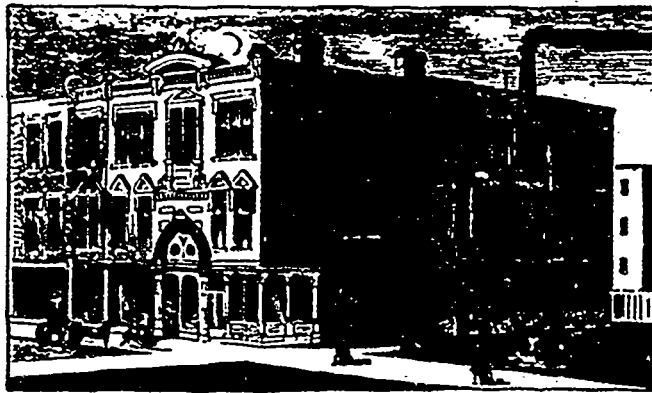
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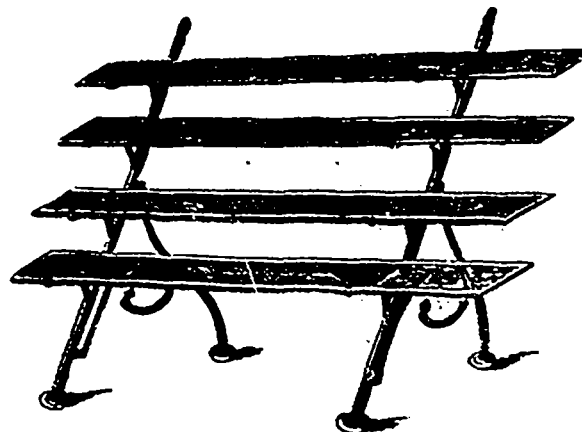
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