

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- Coloured covers/
Couverture de couleur
- Covers damaged/
Couverture endommagée
- Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée
- Cover title missing/
Le titre de couverture manque
- Coloured maps/
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur
- Bound with other material/
Relié avec d'autres documents
- Tight binding may cause shadows or distortion along interior margin/
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure
- Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.
- Additional comments:/
Commentaires supplémentaires:

- Coloured pages/
Pages de couleur
- Pages damaged/
Pages endommagées
- Pages restored and/or laminated/
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
- Pages detached/
Pages détachées
- Showthrough/
Transparence
- Quality of print varies/
Qualité inégale de l'impression
- Continuous pagination/
Pagination continue
- Includes index(es)/
Comprend un (des) index
- Title on header taken from:/
Le titre de l'en-tête provient:
- Title page of issue/
Page de titre de la livraison
- Caption of issue/
Titre de départ de la livraison
- Masthead/
Générique (périodiques) de la livraison

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	12X	14X	16X	18X	20X	22X	24X	26X	28X	30X	32X
							✓				

THE TRADER.

"A Journal devoted to the interests of the Hardware and Jewelry Trades."

VOL. 2.

TORONTO, AUGUST, 1881.

NO. 12

WALTHAM WATCHES!

LEE & CHILLAS, TORONTO,

WHOLESALE AGENTS FOR CANADA

Wish to inform the **Trade** that in addition to being able to fill from stock all orders for the **Celebrated Watches** of

"THE AMERICAN WATCH COMPANY,"

They also keep a **complete assortment** of

ENGLISH ^{AND} AMERICAN JEWELLERY

AMERICAN, WALNUTS, NICKLE, AND OTHER CLOCKS,

WHICH WILL BE FOUND THE BEST VALUE IN THE MARKET.

THEIR STOCK OF

Colored Gold Sets, Gem Rings, Locketts,

NECKLETS, CHAINS, &c., &c.,

Are the latest styles just imported.

SILVER LOCKETS, NECKLETS AND BRACELETS

In great variety.

LEE & CHILLAS, Wholesale Jewellers,

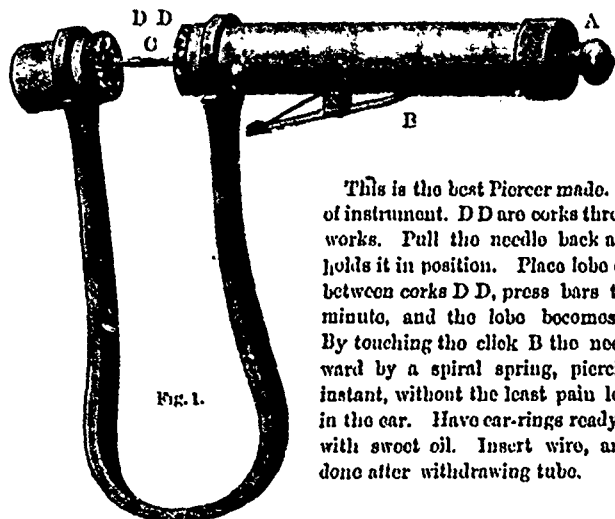
4 Wellington Street West, Toronto.

P. W. ELLIS & CO.,

29 & 31 King St. East, | WHOLESALE JEWELLERS, | Toronto.

SOLE AGENTS FOR

THE ACME PAINLESS EAR PIERCER.



This is the best Piercer made. Fig. 1 is full size of instrument. DD are corks through which needle C works. Pull the needle back at A, and the click B holds it in position. Place lobe of ear to be pierced between corks D D, press bars together for half a minute, and the lobe becomes thin and numb. By touching the click B the needle is thrown forward by a spiral spring, piercing the ear in an instant, without the least pain leaving a silver tube in the ear. Have ear-rings ready and wire well oiled with sweet oil. Insert wire, and the operation is done after withdrawing tube.



The Best and Only Piercer that performs the operation automatically and

FREE FROM PAIN.

No Jeweller can afford to be without it, as it will INCREASE YOUR SALE on Ear-rings three-fold. Remember the Ear-rings you sell, when you pierce the ear, are always solid gold.

The Piercer is made in the best style, of heavy brass stock, and nickel-plate. Spiral and needle of steel and tube of silver.

Acme Collar Button.



Closed.



Acme Collar Button.



Open.

SOLE AGENTS FOR

NEW YANKEE ROLLER ABTRACTOR.

Best and Cheapest made. Send for Complete Descriptive Price List.

ACME SLEEVE BUTTONS.

In ordering be careful and ask for the ACME Button, as there are inferior lever buttons in the market. The Superiority of the Acme will be apparent on inspecting model sent, which shows short post and spring enclosed in shoe.

NOTE.—We are now receiving Acme Collar and Collar Buttons in sufficient quantity to fill orders more promptly.

THE TRADER.

TORONTO, ONTARIO, AUGUST, 1881.

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

Advertising Rates.

Full Page, - - - \$20 00 each issue.
 Half Page, - - - 12 00 "
 Quarter Page, - - - 8 00 "
 Small Advertisements, 8 cents per line.

A Discount of 25 per cent. will be allowed from the above rates for yearly contracts. All advertisements payable monthly.

All business and other communications should be addressed to

THE TRADER PUBLISHING Co.,

No. 13 Adelaide Street East, Toronto, Ont.

THE OUTLOOK.

From our present standpoint, the business outlook for the Dominion is particularly favourable, and it may be pretty safely asserted that in no year since Confederation has this country made such decided advances in prosperity. If the returns showing the number and amount of failures in any country be considered as any index of its prosperity, Canada can surely point with pardonable pride to its financial exhibit in this respect. We learn from the very interesting circular issued lately by Messrs. Dun, Wiman & Co.'s, Mercantile agency, that during the past three months 183 failures were recorded, with liabilities amounting to \$1,876,902. For the six months ending July 1st, the total number of failures in Canada were 349, with liabilities of \$3,902,858. These figures are very much less than those for the same period in 1880; and in order to show the difference we tabulate them below.

Failures. Liabilities.

First 6 months 1880, - 649 \$5,660,768
 " " 1881, - 349 3,902,858

Difference in favor '81, 100 \$1,757,905

From the above it will be seen that the improvement of the present has been very marked over the past year, and the indications all point towards a continuance of the good times.

Referring to the prosperous state of Canada, the circular says: "That in extent, the business of the country has maintained a magnitude never before reached, is beyond question; that its productive power is greater than ever before is equally evident; the ability of the consumer to absorb and pay promptly has increased, while evidences abound on every hand of a growth in wealth and

material resources equalled by no other country in the world."

This may read somewhat sensational, but from the indications of prosperity we see on every hand, we are persuaded that it is not far beyond what is warranted by the actual facts of the case.

With all this praise of our resources and prospects, we are glad to observe that the circular also raises a note of warning about the causes which lead to a reaction upon the national prosperity.

"The expansion into unwise and injudicious credits; the locking up in unavailable shape of capital necessary for business, the increase of business and personal expenses, and above all the growth of indebtedness."

"The facility with which weak and unsound applicants obtain goods, and the growing increase in the time and ease of the terms of credit, are particularly noticeable. These are the first signs of the possibility of a revulsion, which some fear must come from the extraordinary expansion which has occurred everywhere in the last eighteen months."

These are wise words, and even in the midst of our prosperity they are not prematurely sounded, for it is almost entirely from a disregard of the principles involved in them that great commercial panics arise.

Canada has just passed safely through one of the most severe commercial depressions that ever threatened to engulf any nation, but she has stood the strain bravely, and come out with strengthened resources and unimpaired credit. Let her people see to it that strict fidelity to correct business principles shall keep her long on her present course.

HARVEST PROSPECTS.

From every part of our Dominion comes the cheering report that the harvest of 1881, in spite of comet visitors and dire prognostications of failure, has disappointed the expectations formed of it by turning out, on the whole, fully an average crop. That this is so, is a cause for great rejoicing, for although the country has probably fully recovered its measure of prosperity, another good harvest was wanted to set the seal upon its stability.

Although the wheels of commerce, which, for the past few years had been moving with retarded revolutions, have

again resumed their busy motion; they cannot but be accelerated by the effect that another prosperous harvest will have upon every mercantile and manufacturing pursuit.

From one hundred and twelve reports from different parts of Canada, collected by the agents of the *Toronto Globe*, we learn that taking 100 as the average, the following is the harvest prospect:

Per Cent of an average crop

Fall wheat.....	88
Spring wheat.....	92
Barley.....	104
Oats.....	102
Peas.....	102
Rye.....	72
Hay.....	92
Potatoes.....	106
Corn.....	84
Roots.....	101
Apples.....	67
Other fruit.....	77

These figures indicate a very satisfactory return to the farmer, and as a consequence, a continuance of business prosperity. To an agricultural country like Canada, a good harvest means activity and wealth, while a poor one entails depression, if not want, for Canada is above all things an agricultural country, although we have lately made some long strides in the direction of being a manufacturing one. That the harvest prospects are so satisfactory ought to be a sincere cause for rejoicing to every one of us, and should make our hearts acknowledge with thankfulness our obligations to the Giver of all good.

SWISS v. AMERICAN WATCHES.

To any person at all interested in the contest at present being waged between Swiss and American Watch Manufacturers, the difference of opinion among these competitors as to which of them has obtained the highest award at the Melbourne (Australian) Exhibition, must be exceedingly interesting. The American Watch Company, (the only representative of this great American industry exhibiting) received the only gold medal awarded for horological exhibits, while, strange to say, the Swiss State collective exhibit, was awarded the first prize.

The question really to be settled, seems to us to be, which award should be considered as conferring the highest

honors upon the recipients; and we think it very unfortunate indeed that the jurors who made these awards did not make such a distinction between them that there could be no misapprehension about the matter. We publish elsewhere an interesting article on this subject from our esteemed contemporary the Watch-maker and Metalworker of Chicago, and while we cannot but agree with very much contained in it, we must out of common fair play take issue with it in several very important points. First, as to the alleged bribery of jurors at the Philadelphia, Paris and Sidney Expositions.

This cry of bribery is an old dodge amongst defeated exhibitors, but it is so well understood by the general public now-a-days, that unless the statement is uncontrovertibly backed up by facts, it carries little or no weight. To say that the American Watch Company deliberately laid themselves out to buy up a majority of the jurors at all the expositions mentioned above, is so grave an accusation that it ought to be very substantially backed by proof before it receives credence.

Even if the company were willing to buy the jurors, it is hardly possible that the latter would stultify themselves for the sake of a few paltry dollars. Most of these gentlemen were representatives of European countries, some indeed representing opposition industries, and it is hardly to conceive that they could or would be bribed to sink their national prejudices and love of fair play to an alien competitor whose only merit lay in their lavish expenditure of wealth. We say it is hardly possible that the company on the one hand should be willing to bribe the jurors, and on the other that these gentlemen were willing to be bought up. To suppose such a thing would be to put a very much lower estimate upon human honesty than we are inclined to do, and in the absence of direct and positive proof we must decline to consider that this charge has any foundation in fact.

Second, it is asserted that in the observatory tests, the best American watches only ranked fifteenth, and took third rank below its lowest Swiss competitor. Technically this is true, but still it is only a small part of the truth. The whole truth is that the only two fine grade watches exhibited by the American company were damaged in transit from Sidney to Melbourne, and according to

the official report signed by R. J. S. Ellory, Government Astronomer, at Melbourne, Chairman of the Jury, and R. McGregor, the expert employed by the Commission to examine them, were thus unfitted for giving anything like a fair test of their capabilities. Mr. McGregor in his report to the Jury says: "They must have had very rough usage as I found some small pieces of broken glass and some fluffy hairs inside the movement. I also found the centre pinion pivot out in one of the watches, apparently from want of oil. The cause of the variation, however, was owing to the balance being out of poise, caused by the rough usage before mentioned." This being the case we hardly think it could be expected that these fine American watches should stand the time test properly, the only wonder is that they performed as well as they appear to have done.

We do not pretend for a moment to assert that the American watch is a better time keeper than any Swiss watch made, for it is generally conceded by every well informed tradesman that the finest Swiss watches are the most accurate time keepers in the world. But we do say, and we thoroughly believe it to be correct, that machine made watches the product of American factories are the best watches in the world for the money, and that for the general purposes of wear they deserve to stand at the head of the list.

The question of which American watch is entitled to the highest rank is yet undecided, but we imagine that this question will be fully settled before many years pass over our heads; until then we are content to rank them all equal and to see in the victories of the American Company at Philadelphia, Paris and Sidney, the reward of an intelligent appreciation of the superiority of one of America's greatest industries.

CANADIAN CREDIT IN ENGLAND.

A little over a year ago, our legislators in the plenitude of their wisdom, repealed our bankruptcy laws, or rather refused to give them a new lease of life. We pointed out at that time that their action was not only unjust but injudicious, and that sooner or later it would tell unfavorably against national and individual credit. That our predictions have fully come to pass, most of our readers are well aware, and if on account of our

abundant prosperity at home credit is cheap here, it is certain that our credit has been injured abroad. An illustration of this is found in the fact that only a few days ago an influential deputation headed by Mr. Samuel Morley, M. P., and representing the leading merchants of London, Manchester, and Liverpool, waited upon Sir John A. Macdonald and presented to him the following memorial, which fairly represented the views of the British merchants engaged in export trade in Canada.

The memorial runs as follows:

"The undersigned merchants of the United Kingdom, being largely interested in the commercial prosperity of the Dominion of Canada, beg respectfully to call the attention of the Government to the following facts:—1. That since the repeal of the Insolvent Act of 1875 it has become impossible for creditors to ascertain their real position and powers with regard to insolvent debtors, the most eminent commercial lawyers having been unable to give authoritative advice upon the subject, owing to the confused state of the law, differing as it does in different Provinces. 2. That it follows that creditors, especially those at a distance, are practically at the mercy of the dishonest debtor, experience having shown that there is no available means of preventing a debtor of assigning all his assets by preferential payments or bills of sale to favored creditors, and leaving the rest without remedy. 3. That the continuance of such a state of things, however its real tendency may be disguised by the present prosperity of the Dominion, is entirely fatal to that confident expectation of fair treatment which is at the basis of all trade; and must in the end most seriously impair the general commercial credit of the Dominion, to the great injury of the common interest of the country. Your petitioners would therefore pray you to introduce into the Canadian Parliament or to favor the introduction of a Bill which should at the least make such preferences by an insolvent debtor impossible, and should provide for the expeditions, cheap, and equitable distribution of assets in all cases where a trader is unable to meet his lawful engagements; and your petitioners would express their hope that a means may be found to make it to the interest of the debtor in all cases to place himself unreservedly in the hands of the general body of creditors as soon as he

finds himself insolvent. And your petitioners will ever pray."

In the above pithy and common sense memorial we have more sound business policy than animated from the whole of the parliamentary opponents of the late Insolvent Act, during the debate that culminated in its repeal.

Our legislators may talk till the crack of doom, but they cannot argue cool headed English merchants into the delusion that it will be a safe venture to send their goods on credit to a country whose laws give them no assurance of getting a share of what property an insolvent debtor may have.

Under our present law, or rather want of it, the first creditor who issues his writ has the advantage over all his competitors, or the insolvent may turn over his estate to a favored creditor before the others are aware that there is anything wrong, and thus leave them out in the cold. The principle that an insolvent's assets should be divided *pro rata* amongst the whole of his creditors is a sound one, and the sooner that our government recognize its justice by bringing our present chaotic system of deception and fraud to an end, the better for our credit both at home and abroad.

Selected Matter.

ON THE AMERICAN WATCH AWARDS

We have been observing with great interest the conflict going on for several years between the watch manufacturers of Europe and America. Honorable competition is commendable in every and all departments of industry, and, indeed, it is the chief incentive to progress and improvement, if not the very soul and life of business and enterprise. It stimulates individual energy and industry, in leading on to discovery, and the introduction of improved methods of production, and thus permeates all the ramifications of business life.

We are not disposed to enter the field as the champions of either of the contestants, for they are amply able to do that for themselves, nor do we propose to offer ourselves as umpires to decide the controversy; but we beg to be permitted to say that whatever our patriotism may be—whatever our pride and interest in the great industries of our country, and whatever our preferences or discriminations may be, in regard to horological machines—we feel compelled in a measure to waive them all, when the question of

truth and justice is to be decided. We are laboring for the promotion and advancement of all the interests, great and small, individually and collectively, in any way connected with the watch and jewelry interests; and, therefore, in our endeavours to place THE WATCHMAKER AND METALWORKER at the head as the leading horological journal of this country, and elevate it to the standard of a scientific and technical medium of thought for the profession generally, we can not afford to give utterance to any form of criticism to which we are not necessarily driven by the demands of truth and justice. We, of course, claim our right to private opinion, of which prudence may often forbid public expression. But upon any subject in which the public may be concerned, nationally or otherwise, in the great manufacturing and commercial interests of the watch and jewelry business, we would manifestly be remiss in our duty, if we failed to give it that attention the importance of the subject seemed to demand.

In the commercial intercourse with the world, as a nation, we can not, as citizens of a great manufacturing and commercial nation, feel unconcerned or indifferent when questions of grave consideration are presented. A nation's standing among the family of nations is judged of by its public acts with this family, or of its respective members. And it is also true that those of its citizens who go abroad, and come in contact with, and have intercourse, in business or social relations, with citizens of other countries, do to a greater or less extent create a favorable or unfavorable opinion in the foreign mind in regard to the character of their people at home. And it is no less true that the *only* way to avoid the charge of dishonor is to tell the truth and deal fairly. For he who is known to have lied must not expect to be taken as authority for anything, is an old adage, well understood, and it applies nationally as well as individually. And, for love of country, with a spirit of the purest patriotism and devotion to the honor of our country, we desire to be understood as treating this question, practically and theoretically, upon just international principles, and not from any motives arising out of personal or local interests. We desire to see our people occupy a position for honesty and fair dealing, in the estimation of their competitors and rivals in all departments of industry,

equal to their prowess in the fields of battle and use of arms.

In view of all the ground under consideration, we are utterly unable to see any ultimate good, either from the standpoint of morality, science or business, which can possibly come of any unfair and unjust conduct on the part of either of the contestants in this international and highly important controversy. After thus promising our subject, and before we proceed to make our application more plainly, we wish to repeat that we have the highest regard for the parties, and shall allude to them in the most respectful manner.

In behalf of the watch interest of the world, we arraign the American Watch Company, of Waltham, for having, by a systematic course of trickery and false puffery for the past ten years, endeavored to delude the people of this and other lands into the idea that all that is good in watchmaking or watch machinery emanated from the giant intellect locked up at Waltham. This has become so patent as to reflect unjustly on the entire watch-manufacturing interest of America and it has been openly charged, and we have not to hear it denied, that this corporation used an undue influence on venal jurors, at the Centennial Exhibition of Philadelphia, in 1876, at Paris, 1878, and at Sidney, in 1880; also that people attribute their defeat at Melbourne to the fact that the jurors could not thus be influenced; for it was a defeat practically, scientifically, and in every way, much to the chagrin and disgrace of American watch manufacturers.

The Waltham Company, however, with their usual tact at catching at technical straws, have used the fact of their having received two medals for the general appearance of their exhibit, and their superior mode of manufacturing, as a pretext for advertising all over the world, in such a manner as to lead the general public to believe that they secured the highest award for the time-keeping qualities of their watches. This is but cold comfort to them, and not to their credit; and it is our hope that the future reputation of American watches will not be left to a company which takes so little pride in the time-keeping qualities and the utility of their watches.

Now let us see what some of these charges are: In the first place we will refer to the indignation that was aroused, just after our Centennial Exhibition, in

1876, in the minds of the Swiss people and others, through an infamous and false translation of a speech made by the Swiss commissioner, Mr. Ed. Favre Perrott, upon his return home. It will be remembered that he came out and denounced the correctness of these American interpretations most indignantly. And notwithstanding the fact, so notoriously published abroad as well as at home, so far as we have been able to see not one word has been said in support of the American translation by any one.

From long experience in handling watches we are prepared to form an opinion of them upon actual merit, and are free to say that the honest and unmistakable merits Waltham watches place them beyond any necessity for overrated and false representations. We do not wish to see attached to them the odor of a patent medicine, whose chief merit consists in the free use of printer's ink. We are willing always to recommend them upon their just merits, but not upon the idea of false representations.

In reference to this matter of charges, and in support of our remarks, as also for the benefit of our readers, we quote from a horological journal published in London, England, some time last year. In alluding to the report issued by the jurors in horology at the Sydney Exhibition, it says:

Although it is an unpleasant task to criticize and question the judgment of what was presumably a jury of experts, the extraordinary character of the report referred to demands further examination. The greater part of it consists of a laudatory description of the factory and mode of manufacture of the American Watch Company; which, as the duties of the jurors did not include an excursion to the United States, clearly can not properly be the result of anything pleaded before them for adjudication. We are not prepared to assert that there are no good features in the American watches, or to grudge the Americans praise for their comprehensiveness of their operations, both in manufacturing and selling; but the beslaving of the Sydney jurors is overdone, and is calculated to awaken distrust and suspicion. We are told that the Americans are the introducers of watchmaking by machinery on the interchangeable system; whereas, watches were in fact made on the interchangeable system by machinery in Switzerland forty years ago, and a few years later in London. The application of the going barrel, the discarding of stop work, a process of enameling which is described, and other about which the jurors can not restrain their admiration, are not new. But to claim as a specialty of the Ameri-

can Watch Company the isochronal adjustment of the balance spring, and the making of the teeth of wheels of an epicycloidal form, is simply mendacious impudence. Their Mr. Fogg certainly deserves the credit given for his invention of the safety pinion, but a compensation balance on the principle of Mr. Wood's, respecting which we shall have more to say further on, was invented by Henri Robert, and described in 1829 in a French scientific paper, published by "La Societe d'Encouragement pour l'Industrie Nationale." As the suitability of the lever escapement for the pocket-watch is descanted on in the notice of the American exhibits, it appeared at first sight that the Americans invented this also, but a second reading shows that it is only its adoption which so delights the jurors.

And, strange to say, this was published by the said New York organ, and still drank its tea with its usual complacency. If these remarks, by so high and honorable authority, mean anything at all, they evidently mean just what we are talking about. The intollient readers of THE WATCHMAKER AND METALWORKER, we believe, will understand this as we do—"that there is something 'rotten in Denmark.'" In the June number of THE WATCHMAKER AND METALWORKER we published a report of the watch competition at Melbourne, made by order of the Swiss Government, and which is intended as a reply to the stereotyped claim of the Waltham Watch Company, that it had carried off the first prizes at Melbourne.

In that report it will be seen that the best American watch occupies the fifteenth rank, or the third rank after or below the last Swiss watch. And it is also further observed that all the Swiss watches submitted to the astronomical observatory of Melbourne for test were all cheaper than the American watches, and that the awards granted were bestowed upon all the Swiss manufactures of watches exhibited collectively at Melbourne. Now in view of these facts, says the above authority, "What ought we to think of the American publications announcing that the Waltham Company had obtained a new or a fresh victory over its rivals." As additional proof in justification of our remarks in this article, we refer the reader to the article in our June number of THE WATCHMAKER AND METALWORKER, under the head "Treatment of Swiss Operatives in America." It is also charged in Swiss papers that the agents of the American Watch Company attempted to sell, and perhaps did sell, watches which they represented as

having stood the test, and taken the highest awards, notwithstanding the facts in the case as shown by the authorities referred to in this article. As we have said before, we are only seeking after the truth, and would be pleased to be corrected if in any particular we have erred.

We look with admiration upon the speedy and onward march of the watch-manufacturing interests of our country, and no American can feel greater pride than ourselves in her achievements, but, at the same time, we can not endorse, through the columns of THE WATCHMAKER AND METALWORKER, or in any other manner, falsehoods, knowing them to be so, and boast of any supposed honors obtained through fraud, trickery, or any device apart from honest merit.

FRAUDS IN JEWELRY.

To apportion accurately the immorality of the public who deceives in the wearing of base jewelry, and of the jewelers who deceive the public with fraudulent jewelry, and the acting and re-acting of the classes on one another, would be a nice question in casuistry. No civilized people wear as much jewelry as the Americans; nor is its use confined to any particular class. It is estimated that \$50,000,000 of capital is invested in the jewelry business. But large numbers convey vague impressions. A more correct idea of its extent lies in such a trifling fact as that one house alone, from the 15th of August to the middle of November, put forth five thousand pairs of bangles. This is simply the fashion of the hour, which at present is tinkling from the Fifth avenue to the Five Points, and which, in turn, will give way to another fleeting fashion, calling suddenly upon the jewelers' immediate resources. It is easy to see how injurious this is to the jewelers' trade. In the first place it interferes with the production of the higher class of work, of those artistic pieces which were formerly handed down as heirlooms. Almost all houses have their private designs. But these it being almost impossible to protect are immediately copied in all grades down to the basest materials. Men employed by unscrupulous houses will copy designs from show windows, and an especially enterprising agent has been known to sketch a particularly choice piece worn by a lady on his laundried cuff. Jewelers can not afford to produce out work. A striking design must be

hastily pushed upon the market and the harvest reaped at once. When the mistress finds her ornament copied in her maid's fire-gilt, she hastens to discard it, and seeks for a greater novelty. The same thing obtains throughout the country. A traveling man finds it not worth while to show the same goods twice, however beautiful and artistic they may be. "Why, this is old! Haven't you brought anything new?" exclaims commercial Athenian out West. When the Castellani collection was in this country there was one great ornament, beautifully iridescent, which excited the admiration and curiosity of the guild, nothing having ever been seen like it before. At length one gentleman, by much labor and repeated endeavors, discovered the secret of this iridescence to lie in sweating layers of gold one on the other. But such zeal as this is only possible for the man who can indulge his love for his trade, as no pecuniary good can be reaped from it.

The second difficulty is more immediately objectionable, and at the same time could be more easily remedied. Artistic debasement is a subtle quality, but fraud is a tangible fact. Against this at present the public and the honest dealer have absolutely no protection. There is a large number of unscrupulous dealers who make a business of selling gold jewelry which contains more copper than conscience, as it has been excellently put, and, strange to say, the laws as at present framed sustain them in it. To give a case in point: A man bought a gold watch of one of these men. Finding himself swindled, he had the dealers arrested, and the case came to trial. It was discovered that the watch-case contained but four pennyweights of gold; the rest was brass or other alloy. Nevertheless, the Judge decided that inasmuch as the cost of the four pennyweights of gold exceeded the cost of alloy, the watch was to all intents a gold watch. The ways in which these frauds are perpetrated are numerous and most ingenious, and the important branch of the business is watches. The most desirable watch-case is of eighteen-karat gold, it being susceptible of higher polish, and is more easily kept clean. A person wanting to buy a watch with a case of eighteen-karat gold will as often find that the back of the watch alone is of the required purity, and that the value will degenerate until the run will probably be of eight-karat gold. But the purchaser will

pay all the same the full value of eighteen-karat gold. The customary way of trying a watch is to ask for a fifty, sixty, or whatever desired number of pennyweight case one may want, for which the price is probably \$1.50 a pennyweight. Now, in buying of any but a well-known, honest house, the probability is that a man is buying twelve or thirteen pennyweights of steel spring, which he has paid for as honest gold. The ingenuity with which watches are hollowed out for the introduction of this spring would accomplish good and worthy end in some other direction. A watch has been sold to contain thirty-six pennyweights of gold which actually contained thirteen pennyweights of steel spring. In other instances the stem is but a shell of gold filled with brass. Against such swindles the purchaser has no protection but to buy of houses of established reputation. The honest houses have absolutely no redress against these men who are injuring the jewelers' trade, except that which comes from their own consciences void of offence, which is satisfactory as far as it goes, but which, unfortunately, does not go far enough.

The favorite proceeding is to engage rooms on Maiden Lane, which is known as the jewelers' street all over the country, and to advertise from their respectable surroundings their fraudulent wares. Jewelry purporting to be of eighteen or fourteen karat gold will be really of eight-karat gold, colored to represent eighteen-karat gold. A distinguished public man wearing a handsome pair of sleeve buttons was asked by a gentleman interested in these matters to allow him to have his buttons assayed, promising to return him a duplicate pair. The price paid for the buttons was eighteen dollars. On assaying they proved to contain but five grains of gold, when they should have contained at least five or six pennyweights of gold. Often the fraud is much more base. The American wedding ring, which already has dropped from the English twenty-two karat ring to eighteen-karats, is often but a shell of gold filled with brass. The great advance made in coloring gold has aided these practices. Formerly only eighteen-karat gold would take a Roman finish, but now even brass masquerades as Roman gold. The passion for ornament, which must be gratified at any cost, does not leave a sufficient margin for caution, and there are not a few people who are

delighted at buying eighteen-karat gold for eight-karat prices.

These same facts hold good in silver, and will account in many instances for the marvelous premiums set forth with circumstance by precarious worklies, accompanied by ornate cuts. A little silver has the advantage of spreading itself over a large surface, and a handsome set of spoons, in a case such as one often sees offered, can be bought for eighty cents a dozen in the case of the manufacturer. For all this there should be a remedy. If goods stamped eighteen karats fall short of their value, the dealer deserves to be prosecuted for forgery; but to this end a law requiring this stamp to be affixed is needed. Of all the plans which have been considered by the men who have found their business cut from beneath their feet by these dishonest practices, the most effective, in their judgment, is a Government recognition of a standard for wrought gold, with penalties for the debasing of the standard such as hold in debased coin. Some of them think that Congress has power to pass such a law, but in reaching this conclusion due account probably has not been taken of the constitutional limitations of the power of Congress. Thus, for example, Congress has just refused to regulate to the use of trade marks in domestic trade. Relief is more likely to be obtained from the State than from the Federal government. In other countries the people are protected in this way. The humblest seller of the most trifling piece of gold jewelry in Italy, for instance, can be required by law to give a written guaranty that it is what it purports to be, and liable to arrest if it is not. Some efficient means certainly should be provided, compelling dealers to stamp their articles so that purchasers may be assured that in buying eighteen-karat gold they are receiving eighteen-karat gold and not fourteen karats (if not eight).—*New York Evening Post.*

LABOR vs. CAPITAL—THE RELATIONS BETWEEN MASTER AND MAN.

Nobody is quite satisfied with the business relations between master and man, and the same social antagonism ever obtains. The master laments the degeneracy of the times, in that the working men are not what they used to be—not as they should be. The man is equally dissatisfied; saying the master takes all the

fat, and does none of the hard work. Oh! when shall I be a master? sighs the man. Both are unhappy — both striving to change their relative conditions; the master endeavoring to keep down the man, the man as earnestly striving to become master. Each forgetting that this relation *must* exist, and each forgetting that he can contribute much towards making the inevitable less uncomfortable, or possibly pleasant. Sympathetic respect for the feelings of each—a careful study of what you would feel, and how act if put in his place, would largely contribute to lubricate the frictional surfaces of trade machinery. None of these wheels are perfect, some are out of round, some eccentric, consequently variable in their actions and reactions. There is more or less disproportion in the relative sizes of these commercial wheels and pinions; any or all of these imperfections may be so great as to make a substitution necessary to keep the machinery running, or if, in spite of these, the mill does grind, it is with such clatter, and wear and tear as to endanger the stability of the business.

A very few men are born with a talent for control—a native intuition of what other men feel when subordinate, and how they should be treated so as to get their best services and at the same time secure their respect and regard. Those not so gifted by inheritance need the experience that comes by being themselves subordinate, and so feeling in their own persons the effects of those complicated environments that inevitably attach mutually to the condition of employer and employee. There are some who rise from man to master that profit by such experience, and learn how to rule justly and mercifully; others, not so wise, practically illustrate the fable of the “beggar on horseback.” The love of power in some form is indigenous in the human constitution, and the phases it assumes are infinite—the master worries the man, the man worries the wife, the wife worries the children, the children worries the dog, the dog worries the cat, the cat worries the mouse, and so on till the power to worry is lost in the dim perspective of sentient existences. Supremacy—or the position to control, seems to beget in the possessor a longing to use the power—a desire to *compel* the recognition of superiority when it is not voluntarily bestowed.

Aristocrats are not always “noble—

men,” as often they are quite the reverse. The aristocratic feeling comes oftener from the possession of wealth, than from the noble qualities of the man. My first employer was of this class, not that he was rich, but because he was the head of a good establishment all the subordinates were expected to show him deference. He and I soon came into collision; as I passed him in the morning going through the store to remove my coat and hat preparatory to work, my “good morning” salutation was not made with bared head and hat under my arm. I was spoken to on the subject, and informed that as an employee it was my duty to remove my hat in his presence, and thus show proper respect to him as proprietor of the establishment; that our relative positions made it eminently fit and proper for me to do so, and that hereafter it would be expected, etc. I was touched—but not with humility, I knew and felt that as men I was quite his equal, and vanity whispered, vastly his superior mentally. I politely told him (hat in hand) that to salute him as one gentleman would greet another, was all that he could claim of me. As employer, he had no more claim to my deference than I had to his; his business was as much dependent on me (or some other watch-maker) as mine was on him, I could as easily find another employer as he could an employee, and his claim for worshipful obeisance was no better than mine, or in more modern phrase the relation of labor to capital, was the same as capital to labor, mutually interchangeable. From that time we got on amicably—he was wise enough to see and comprehend the relation, and governed himself accordingly.

Little men (mentally) are usually the worst masters; their small meannesses are as irritating as nettles; no one prick or stab is of sufficient size to be tangible—too small to be resented, but the multitude of these irritates beyond measure. Not alone are words used to crush and humiliate an employee—looks, actions, manners, are quite as potent to sour what might otherwise be sweet and pleasant business relations. “Do this,” are not unpleasant words in themselves, and may be so said as to convey no sense of command, and yet they may be so uttered as to pierce the very marrow of a sensitive employee. This subject, like all others has two sides. Underlings are often tantalizing — vexatious — pesky—

but are they made less so by being trampled upon? May they not have been made so by tyrannical, dictatorial masters? Will the same treatment that made their bad manners mend them? He must indeed be brutal man who cannot be better managed by reasonable, gentlemanly, sympathetic treatment, than by a “counter irritant” method.

The bond that necessarily links together for a time the employer and employee should not be an inflexible rod, but a gently drawing elastic band of mutual benefit, a link that will allow freedom of motion at either end within certain limits, and so prevent the jerks and punches that must result from a rigid tie. If anything approaching this desirable condition is to be attained to, it will be by such *mutual* concessions as men and women must make to ensure conjugal happiness when they voluntarily assume the relation of husband and wife—and so a smiling, happy business family can only be found where labor and capital are lovingly married.

Our own craft, probably, suffer as little as any from this cause; but when even that little can be easily avoided, and at no cost except a trifle of self-control, and with a gain of good feeling and good service, it seems desirable that both parties to this condition of things, should contribute as much at least, as an earnest endeavor to make the relations as harmonious as possible between master and man.—“*Jewellers' Journal.*”

BUSINESS DIFFICULTIES.

The average merchant's life is a hard one, popular belief to the contrary notwithstanding. The fascination which it seems to possess for the unpractised, the growth of commerce, the cheapness of credit in late years, and the openings which seemed to offer in new countries, all helped to increase the proportion of merchants, so called, who see in store-keeping an occupation simple, light and genteel. How grievously many of these have been undeceived as to its simplicity and comfort, the sad array of mercantile wrecks which, in this country as in all others, strews the shores of the stream year by year, too plainly tells. The respectability of the occupation is not denied, unless by a narrow minded born aristocrat. The mistake people make is in fancying that the business of a conscientious mechanic or farmer, that is, of an honest man who makes goods or

one who cultivates land, is in itself any the less worthy of respect than that of one who buys and sells merchandise.

Prominent among the causes which tend to make successful merchandising difficult are: diminishing profits; the increase of store-expenses, especially in cities; and the inordinate growth of household disbursements occasioned by the luxurious tendencies of the present time. There is a growing disproportion, in this country at any rate, between the extent of a retail merchant's proper resources and the expenditure he permits himself or his family to indulge in. It cannot be denied that in dress, in house-building or furnishing, in indulging his children, young or old, in fashionable but useless habits and pernicious practices, many a struggling merchant wrocks his chances of success and buries himself and his future under a weight of empty finery and folly. It is painful to see a dealer who, by living over his retail shop, keeping his own books and practising in his household and in his business the economy plainly the duty of one with small capital and limited income, might make a comfortable living, launch out into theatre-going, club-frequenting, sea-side-holidaying, dressing his children like French fashion plates, or sending them to the piano in the parlor instead of to the nursery or the kitchen.

It has attracted the attention of the *New York Times* that the failures for the first three months of the present year were nearly double, in number and amount, what they were in the like period of 1880. In seeking for the cause of failure, that journal concludes that "A principal cause of trouble, especially in retail trade, lies in the enormous rent demanded before a business has attained the volume which properly enables it to be paid. Few tradesmen in New York, comparatively, have to day much capital to fall back upon: because from 1878 to 1880 they were living upon it, and consequently most have nothing now but such savings as they can effect from day to day, and are, therefore, ill-prepared to meet the heavy increase of rent lately placed upon them." The pressure of rent is not so great in Canada as in the metropolis of the States, but still the proportion which rent bears to the turn-over of his business is a matter which should be carefully considered by any merchant. We have known a retail dealer whose annual sales did not exceed \$10,000 pay

\$650 rent, which was equal to nearly half the annual profit; he could expect to make. Such an expenditure for rent is ruinous, being out of all proportion to a trader's requirements. There are many shop keepers in our cities and large towns who pay too much rent for the amount of business they do. When gas-bills, tax-bills, water rates, fuel, light, and clerk hire are added, and the total subtracted from the gross profit, the remainder does not often permit the dealer to indulge in hopes of heavy additions to capital. It is much more likely to make him "wish he were a boy again," behind the counter at six dollars a week.

The next point to be considered is the narrowing margin of profit. Such is the rush to get into business, and the rivalry which a multitude of competitors occasions, that wasteful and absurd methods are practiced by some unthinking dealers to attract trade. Goods which might just as well bring a profit of six to ten per cent. are sold for no profit at all, sometimes at a loss. We were ourselves witnesses the other day of a purchase of granulated gas for ten cents per pound at retail, when the wholesale quotation of that article was 10½ to 10¾ cents. It will be said "no one expects to make a profit on sugar," but even if that were necessarily true, the man who retails it a half cent below the wholesale quotation by the barrel is foolish. Careful selection and close buying are characteristics of the prudent merchant. But of what avail are these if the buyer give away his profit? More sensible retailers, even, consider themselves forced by the folly of those inexperienced ones of whom we have spoken, to follow the bad lead, and sell goods under cost. We protest against such a doctrine. If a man have capital of his own he is, of course, at liberty to squander it in such a way as this (though very unlikely to do it). But if he have not, and only continues by the sufferance of his creditors, he has no right to deplete his estate and expend the money of his creditors in any such manner, and it would be wise to close his shop rather than permit such a demoralization of trade.—*Monetary Times*.

An iron steamship of 1,500 tons named the "Campana," has been bought in England and is to be placed on the Lake Superior route from Collingwood to Duluth. She sailed from London on June 27th for Montreal, it is of light draft, and generally adapted for lake traffic.

IRIDIUM.

John Holland, of Cincinnati, a leading manufacturer of gold pens and pencils, in a recent lecture before the Ohio Mechanics' Institute, described an important discovery, recently made by him, of a process for fusing and molding iridium, a metal hitherto regarded as not capable of being worked into bars, though Mr. Holland has long used it for making points for gold pens. The discovery consists of the addition of phosphorus to the metal when at a white heat. It is harder than steel, and nearly as hard as ruby. It has to be molded into convenient form, and then sawed or ground by rapidly revolving copper disks treated with emery and water. It is said to be the best substitute for the negative carbon in the electric light, a bar of it having burned sixty hours without loss of weight or change of form. It will not rust, and cannot be injured by acids. Iridium cannot be fashioned by hammering while hot, nor can it be filed. Great interest has been aroused by the practical discovery, and already many uses for the metal have been suggested, besides the electric lamp. It has been found to be superior to platinum in telegraph instruments. Prof. Dudley gives an interesting history of experiments by chemists and others with this metal, which is now undergoing elaborate examination at the Cincinnati University.

SCIENTIFIC AND OTHER NOTES.

MACHINES in a watch factory will cut screws with 589 threads to the inch—the finest used in a watch has 250. These threads are invisible to the naked eye, and it takes 144,000 of the screws to make a pound. A pound of them is worth six pounds of pure gold. Lay one upon a piece of white paper and it looks like a tiny steel filing.

The first coins of the United States were struck with the portrait of Martha Washington, Mr. Spencer, who cut the first die, copying her features in his medallion. When Gen. Washington saw the coins he was very wroth, and before any more were struck off the features of his wife were altered somewhat and a cap placed on the back of her head, this being the original of the present Goddess of Liberty.

A REMARKABLY skillful imitation of amber is now being manufactured in large quantities in Vienna. Its chief constituent is resin, obtained from the decomposition of turpentine. While possessing the electric qualities of real amber, it liquefies at a much lower temperature, and offers less resistance to the action of alcohol or ether. To complete the resemblance to true amber, the makers introduce insects and fragments of plants into specimens of the artificial product.

THE 9th of June 1881 will be memorable in the annals of Tyneside as the centenary of George Stephenson's birth. The inhabitants of nearly every town in the counties of Durham and Northumberland kept holiday. The mines were mostly closed, and no work was done at the factories or iron ship building yards of the Tyne and Wear in honor of that great benefactor of mankind.

SINCE the establishment, in June last, of the Greenfield (Mass.) Co-operative Manufacturing Company, cutlery makers, the business has largely increased, and they are now turning out more than three times as many goods as they were last summer. They are now running full time, employ about fifty hands, and manufacture nearly 500 gross per month.

The twenty-third annual report of the trade and commerce of the city of Chicago is to hand and some of the statistics it contains are fabulous. In the year 1838 only 78 bushels of wheat were shipped from Chicago. Last year 22,796,288 bushels were shipped. The largest number of bushels shipped was in the year 1879, when the number was 3,006,739 bushels. The increase in other grain is just as great and surprising.

STRATENA, whose wonderful powers are so frequently exhibited upon the streets, is probably only the old Armenian cement. This is so strong that it will hold jewels in place, and is used for this purpose by the Armenian jewelers, who merely flatten the settings of their precious stones and then stick them in place upon the metal with this cement. It is made by dissolving isinglass in alcohol, along with gum ammoniac. When well made it is perfectly transparent.

A MANUFACTURER whose business requires the use of large amounts of emery has been trying an experiment with the ashes of anthracite coal, and he affirms that he has obtained good results from the use of ashes as a substitute for the finer grades of emery. He takes ashes and saturates them with water, the liquid being poured off after standing an hour or two, then being poured off again, and so until he obtains several grades, down to a substitute for emery flour. When dried the deposit cuts readily and leaves a satisfactory surface.

A ROLAND FOR AN OLIVER.—Considerable sensation has been created at Rouen by the rumour that large capitalists in Lancashire had determined to establish a rival concern to M. Pouyer-Quertier and his compeers in that city. A project is in fact on foot for putting down spinning, weaving, dyeing, and printing works with machinery on a large scale. The Pompadour prints so generally worn in France, and which have to a great extent been produced in Manchester, and have paid an *ad valorem* duty of 15 per cent., but would, under the general tariff, be taxed, if only consisting of three colors 45 per cent. Printed stuffs used for covering furniture or as curtains instead of paying 15 per cent., as at present, would be charged 37½ per cent., and other goods would have to meet enormously increased rates. The promoters of the English establishment at Rouen intend to fit it up with the newest and best machinery, diminishing the cost of production and outstripping the efforts of their Norman rivals, who, with a cumbersome routine, rely upon State protection to enable them to hold their own.

It is proposed to introduce a system of compressed air clocks into London, by which any number of clocks in the city can be wound and regulated by means of pneumatic air currents. There can be one central motor, or a motor in each of several districts if necessary. The plan is to have ten in London and its environs. Of course every clock in the same circuit will indicate exactly the same time. The introduction of the system is approved by the municipal authorities, and a bill on the subject is now pending before Parliament. In Paris, clocks so connected and controlled have given great satisfaction.

A WATCHMAKER in Newcastle, Pa., has completed a set of three gold shirt-studs, in one of which is a watch that keeps excellent time, the dial being about three-eighths of an inch in diameter. The three studs are connected by a strip of silver inside the shirt bosom, and the watch contained in the middle stud is wound up by turning the stud above, and the hands are set by turning the one below. But perhaps the most remarkable thing about the Lilliputian machine is that it works with a pendulum, like a clock, and the pendulum will act with ease and accuracy in whatever position the time-piece is placed, even if it be turned upside down.

THE frequenter of the sales at the Hotel Drouot is often struck by the rich jewels offered to the public by some retiring *demi mondaine*. It is a mistake to suppose that all these diamonds, emeralds, rubies, and bracelets belong to the fair sinner. They are often only loaned her for the occasion by some fashionable jeweler, who is content to share with his partner for the nonce the exorbitant profits that are usually made at *exottes* sales. Some people will pay doubly dear for a bracelet or ring that is said to have clasped the arm or the finger of a celebrated Madeleine.—*Parsian*.

A NUMBER of prominent New York manufacturers have, within the past few days, closed contracts for large quantities of ingot copper, the total of which will reach nearly, if not quite 20,000,000 pounds. The prices were from sixteen cents to sixteen and a-half cents per pound, and the deliveries, it is understood, run during the remainder of the year. These purchases consist almost entirely of copper produced in the lake superior region, and are believed to equal nearly the entire amount that will be produced during the last half of the year. The opening of new mines in various sections of the country has of late increased the production to an extent considerable in excess of market requirements, and to this is attributed the absence of any material enhancement of price by the exceptionally large business just consummated.

FROM Sheffield comes a more favourable report as to the position of the iron trade of the district, without, however, any corresponding improvement in prices. Nevertheless, the tendency is unmistakably in favour of enhanced values. The heavy branches of manufacture are as busy as the lighter are quiet. Much antagonism, is being shown by the working classes against the renewal of the Treaty with France on the terms proposed by the Government of that country, and petitions proclaiming this feeling are being numerously signed by the workman of the town. It would appear that the movement in favour of reciprocity is assuming larger proportions, and is beginning already to press for the consideration of Parliament.

BRITISH IRONWORKS IN RUSSIA.—Extensive steel and iron works are being put up in Russia by British capitalists. Members of Parliament and others, representing some of the wealthiest commoners, are engaged in developing and utilizing the mineral resources of Southern Russia. Near to Odessa, where there are coal and ironstone in abundance, they have erected ironworks, which they are now augmenting with steelworks. Machinery weighing 155 tons, part of a total of 304 tons, will shortly be forwarded by the makers, the proprietors of the Highfields Works, Bilston, for despatch to Odessa.

IN the course of the excavations necessary for the reconstruction of the baths at Durkheim, in the Palatinate, the workmen have come upon an enormous iron chest containing the celebrated treasure of the abbey of Limburg, which disappeared after the siege of the abbey in 1504. The treasure is supposed to have been put in safety by the abbot, out of fear of an attack. It is composed of a large number of vases, and other objects of gold and silver, of precious stones and a host of coins of the fifteenth century. There are also a number of articles for worship, dating from the commencement of the abbey, which was constructed by Conrad the Salic, and his wife, Queen Gisela, and opened in 1030. By the law of the Palatinate, half the treasure goes to the State and half to the French company which has the working of the baths.

THE Kaoka Company, which was started in St. Thomas nearly three years ago, with a capital of \$10,000, one half was paid-up, has come to grief. At one time, the concern did a large business, made money, the profit being stated at 300 per cent and stock was kept in few hands. About \$2,500 was expended on new machinery, buildings, etc., on leased ground. The principal ingredients were bran and a low grade molasses, the compound being roasted in revolving kettles. About two tons per day could be turned out. This was entirely in excess of the consumption in Canada. Foreign markets were sought. A ton of Kaoka was sent to an agent in London, but the customs' authorities imposed a duty of two pence per pound, and the United States three cents. With the other charges added, this duty absorbed nearly all the profit, and the idea of exporting had to be abandoned. As the trade in this country had dwindled to small proportions operations had to be suspended.

KRUPP'S Works at Essen are in themselves an illustration of the immense progress that the metallurgical and mechanical industries have made in the western provinces of Prussia within the last thirty years. In 1851, 250 hands were employed at the works, who produced 560 tons of cast steel, being at the rate of 2¼ tons each hand. In 1861, the number of hands had risen to 2,136, and they turned out 5,000 tons of steel, being at the rate of 2¼ tons per man per annum. In 1865, the production had risen to 50,000 tons, and the number of hands to 8,187, so that the proportional production amounted to about 6¼ tons per man. By 1872, the quantity of cast steel turned out by the *Kanonenkönig*, or Cannon King—which is the local *nom de guerre*, but not the pet name of the great Friedrich Krupp—had risen at a bound up to 125,000 tons, and the number of producers to 12,000, so that each man turned out as much as 10½ tons per annum. In 1876, the proportional production took a further step forward. In that year, the firm kept 8,237 men, and produced 153,400 tons of steel, being at the rate of 18½ tons of steel per man per annum. Thus in the course of 25 years the production of steel per man per annum at Essen rose from 2 tons 5 cwt. to 18 tons 15 cwt., or, in other words, in 1876 each man turned out more than eight times as large a quantity of steel as in 1851. The German paper that vouches for the figures does not tell us what the production of steel at Essen has been since 1876. The aggregate production is generally thought to have increased, but the proportion per man per annum is an unknown quantity.

BUSINESS CHANGES FOR JULY.

J. Anderson, jeweller, Oshawa, selling stock at auction; Wm. Ball, hardware and tins, Chatham, has sold out; W. C. Milner, watches, London, out of business; Geo. Draper, hardware, Moorefield, removing to Manitoba; Jas. Stewart, fancy goods, Napance, dead; John Tanish & Co., paints, Toronto, compromising with their creditors; C. R. Kelly crockery, Yarmouth, N. S. assigned; Geo. F. Sproule, fancy goods, Brantford, removed to Toronto and purchased the retail business of Cobban & Co.; Cobban Mfg Co., picture frames, Toronto, sold out to Geo. F. Sproule, of Brantford.

BUSINESS NOTES.

The copper mines in the Lake Superior region have paid over \$29,000,000 in dividends.

We understand that Mr. H. Smith, of the firm of Smith & Fudger, of this city, arrived in New York from England on Saturday last.

A NEW steamship is building on the Clyde for the Dominion Steamship Company, which it is stated will exceed the Burden of the Allan steamship "Parisian" by three hundred tons. The name of the new craft is to be the "Vancouver."

DELMONICO'S nephew having secured a lease of the bars and refreshment rooms on the line of the Grand Trunk, the contract with Mr. Potter having been terminated, the sub-lessees are in a quandary.

MR. LOWE, of the firm of Zimmerman, McNaught & Co., has just arrived home from New York, where he has spent a couple of weeks in hunting up the latest novelties for the fall trade. He reports business booming in New York and good prospects ahead for fall trade.

We are pleased to hear of the safe arrival of Mr. W. F. Corrier of this city, from his European tour. He reports having bought a large and varied assortment of Fancy Goods suitable for this market, which our readers will, no doubt, have an opportunity of seeing before the season closes.

THE following statistics regarding the operations of the Montreal Custom House during the fiscal year just closed, will prove interesting as showing the large amount of business activity that prevailed. The entries of imported goods were 73,922, the duties on which amounted to \$7,077,793.

THE sudden departure of E. J. Kirk, a jeweler in the Gravenhurst, was quite a surprise to his friends. He is a native of Coventry, Eng., and commenced business in the village of Gravenhurst some twelve months ago. His stock was valued at \$800; this he brought with him from Old Country. No reason is assigned for his leave taking, but he is supposed to have been in debt.

THE extension of the Credit Valley from Ingersoll to St. Thomas is being rapidly pushed forward and it is expected that the road will be completed in the early part of September. The contractor's have over 300 men on the works. St. Thomas will be 121 miles from Toronto by this new and direct line. The formal opening of the road, we understand, is fixed for Wednesday, October 5th.

We are glad to learn that Mr. H. Hale, Jeweller, of Brantford, has fully recovered from the financial difficulties which threatened to engulf him about this time last year. By dint of hard work and close attention to business he has built up a large, and we trust, a profitable business. We congratulate Mr. Hale upon his success and wish him continued prosperity in the future.

JOHN TAINSH, of Brantford, dealer in paints, etc., commenced business here about the first of the year, associating with himself one Johnston. The two members of the firm were to invest \$4,000 each in the business at Toronto, but they were not long at it when they found they were losing money. Now they are trying to get their creditors to share half of their losses by accepting 50 per cent, but this the creditors decline. Mr. Tainsh was supposed to be in a good position when he confined his business to Brantford.

Complaints reach us of delays in the delivery of freight sent over the Grand Trunk railway. Besides this, we are assured that information in regard to freight is very unsatisfactorily given, if given at all. That these complaints are not unfounded is shown by the fact that merchants wanting prompt delivery of their goods have them shipped by way of New York Toronto merchants sum up the grand trunk officials as being "slow, uncivil and disobliging." In these days, when there is so much talk of the construction of rival roads to the east as competitors to the Grand Trunk, the heads of that institution should see that ground is not given for complaint by the delay of freight or the incivility of those who have charge of it.

Montary Times says: We hear of the departure of Mr. F. Armstrong, storekeeper of Maynooth, Ont., who recently disposed of his stock en bloc and left for "parts unknown," leaving sorrowing creditors without two grains of comfort. His style of doing business, was, in the opinion of merchants in the locality, highly detrimental to solvent traders, during his short career. And one of them writes: "I would like to know when will wholesale men discontinue crediting parties who have neither experience, capacity nor capital." We are unable to reply satisfactorily to our correspondent's enquiry. We should be glad if we could say by authority:

"WHOLESALE MERCHANTS IN CANADA WILL, FROM DOMINION DAY, 1891, CEASE TO SELL GOODS ON CREDIT TO RETAILERS WHO HAVE NO CAPITAL, AND WHO HAVE SHOWN NEITHER BUSINESS EXPERIENCE NOR ABILITY"

This announcement would be the most important to the trade ever made through the columns of this journal. But we cannot see the signs which would justify us in predicting any such healthy and general resolve. In spite of losses and warnings, credits are still given too readily. A few prudent importers do draw a wholesome line and adhere to it, but the many seem to think that "the times are good" and that this justifies dangerous risks.

Some of the peculiarities of the Dominion mail service are truly astonishing. If a resident of Listowel, for instance, wishes to send a letter to Dorking, a distance of twelve miles, it goes by stage a distance of twenty-two miles to Mitchell, thence by rail to Stratford, thence to Berlin, thence by stage to Elmira, Glenallen, and ultimately to its destination. Mails to Tralce, five miles east of Listowel, are conveyed by stage and train about sixty miles round by Stratford.

**THE WATCHMAKER
And Metal Worker**

Is the official Journal of the
Watchmakers and Jewellers,

of the northwest,
CONTAINING 56 PAGES OF
Illustrations and Reading Matter.

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.

H. A. PIERCE & Co., PUBLISHERS,
67 and 69 East Washington st., Chicago

New York Office, 10 Maiden Lane,
DANIEL STERN, Manager.

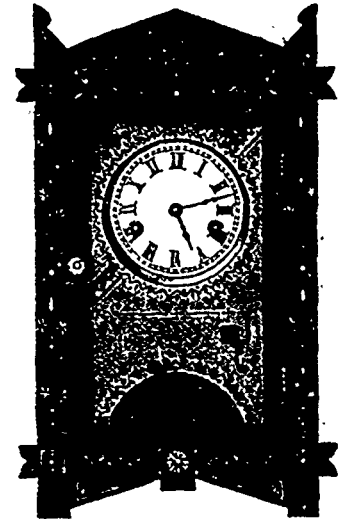
FOREIGN OFFICES.

H. BUSH, Appointed Agent, - HULL, ENGLAND
HENRY F. GILLIG, 419 Strand, W. C. LONDON, ENG.
E. DE WITENDACK, - GENEVA, SWITZER

THE LARGEST

Clock House

IN CANADA.



I beg to direct the attention of the Trade to my large assortment of Clocks, from the following celebrated manufacturers, viz.:

SETH THOMAS, WELCH, NEW HAVEN
GILBERT, AND ANSONIA.

I keep these Clocks in every style now manufactured, and show 180 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.

Prices can be had by the trade on application, and we guarantee to fill all orders promptly at the prices quoted.

Jewelry and Fancy Goods of all kinds.

SAMUEL STERN,

Sole Agents for SETH THOMAS CLOCKS,

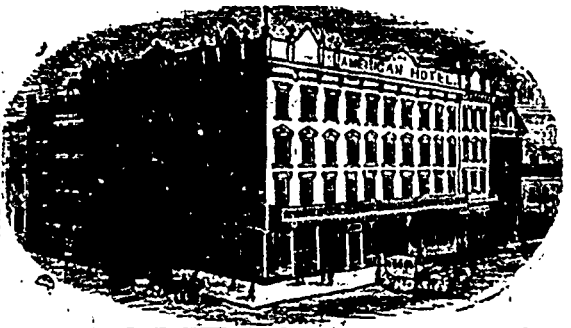
31 Wellington, 40 Front St. E., Toronto

THE "AMERICAN."

THIS old established Hotel containing 100 rooms, is located on the corner of Yonge and Front Sts., overlooking the Bay of Toronto, and being only one block from all of the R. W. Depots and Steamboat Landings.

This hotel has just been newly decorated, newly and elegantly furnished throughout with Brussels Carpets, Solid Walnut Furniture, Pure hair with the best Spring Mattresses, and new Billiard and Sample Rooms.

From its commanding location, and its future management, no Hotel in Toronto will offer superior accommodations to the travelling public. Rooms can be engaged by mail or telegraph.



WILLIAM MACKIE, - PROPRIETOR.

ATTENTION!

Our Stock is now complete and consists of English and American Jewelry, Swiss & Waltham Gold and Silver

WATCHES,

Spectacles, Silk Guards, &c.

Prices Low for Cash.

J. Segsworth & Co.

23 SCOTT ST., TORONTO.

THE
'Commercial Traveller'
AND
'Mercantile Journal.'

The only Organ of the Commercial Man in Canada.

Published monthly at \$1.00 per year in advance.

Invaluable to Commercial Hotels as a medium of advertising, and to country merchants for its reliable and authenticated price lists current. No merchant should hesitate to send in his dollar for one year's subscription to the Commercial Traveller, mailed to any address POST PAID.

Box 21; Commercial Traveller Office, London, Ont.

GEO. E. COOPER,

Ornamental and General Engraver,
31 KING STREET EAST,
TORONTO, - - ONTARIO

ALL KINDS OF PLATE, JEWELLERY, ETC.
TASTEFULLY ORNAMENTED.

Inscriptions, Mottoes, Crests and Monograms designed and engraved in first-class style. Terms Cash.

INSTRUCTION GIVEN.

A. KLEISER,

IMPORTERS OF

Watchmakers' and Jewellers'

TOOLS,

French and American Clock materials, Stem Winding and all other Wheels cut to order.

Watch repairing for the trade. A large stock of Swiss and American Main Springs and flat Watch Glasses for American Open Faced Watches.

Nickel & Dust Proof Keys. Price and Sample sent on application.

No. 14 King St. East,
2ND FLOOR,
TORONTO.

A. C. ANDERSON & CO. JEWELLERY

TOOLS, MATERIALS AND SUPPLIES.

Trade Work a Specialty. Only first-class men employed.

Our new Price List sent free on application.

A. C. ANDERSON & CO.,
6 John Street North, Hamilton.

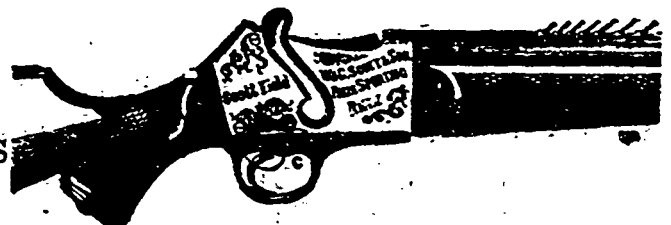
W. M. COOPER,

Manufacturers' Agent and Dealer in

Guns, Rifles & Sporting Goods

OF ALL KINDS.

29 KING ST. WEST, - TORONTO.



The "Scott-Field" Sporting Rifle.

The above cut represents the new "Scott-Field Rifle, manufactured by W. & C. Scott & Sons, Birmingham, England, for general sporting purposes. This Rifle has the "Field" patent action, which is considered by all sportsmen who have seen it to be the best ever invented. The fact that Messrs. W. & C. Scott & Son and John Rigby & Co., of Dublin, have adopted the "Field" action for their new sporting and Targo Rifles, is proof positive that in the opinion of these celebrated gun makers the "Field" is superior to all other actions now in use. The "Scott Field" Sporting Rifle is 44 cal., sighted up to 300 yards, and can be had either with plain or pistol grip stock. No Rifle in the market can approach it for simplicity, accuracy, convenience, durability and safety. Sole Agent for Canada.

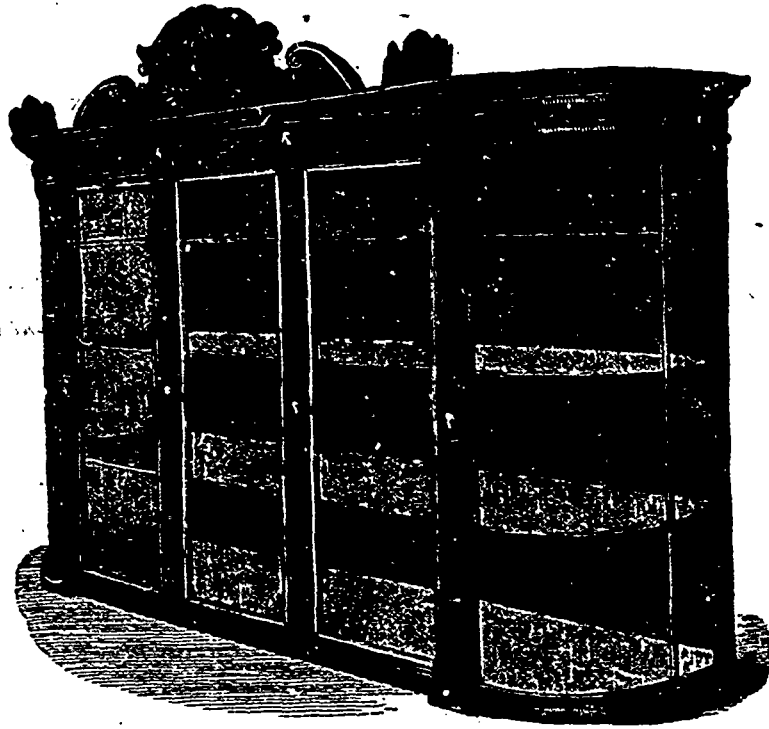
W. M. COOPER, - - - TORONTO.

Large Assortment of "Scott" and "Greener" Guns kept constantly on hand.

ESTABLISHED 1859.

W. MILLICHAMP & CO.,29 TO 35 ADELAIDE STREET EAST,
TORONTO.

SHOW CASE MANUFACTURERS AND SHOP FITTERS, GOLD, SILVER, NICKLE AND BRASS PLATERS, ENGRAVERS, &c., BRASS RODS AND BRACKETS FOR SHOW CASES AND SHOP WINDOWS TO ORDER, NICKLE AND BRASS WINDOW BARS, DOOR PLATES &c., CARRIAGE AND HARNESS PLATING.



We would respectfully call the attention of all dealers in Plated Ware to the above cut, shewing our new design of Wall Case for Plated Ware. They are the handsomest and most attractive Wall Case made. We get them up in Square and Circle ends, with Nickle Silver doors, either to slide or open out. Size from 6 to 12 feet long and 6 feet high. Prices given on application. All styles of Counter and Window Cases in Silver and Wood and Silver jointed to order. Prices as low as quality of work will warrant. Send for our Illustrated Catalogue.

W. MILLICHAMP & CO.

WELCH & TROWERN, Jewellery Manufacturers & Diamond Mounters



The lowest prices
consistent with good
material and workman-
ship.

All orders forward-
ed promptly, and war-
ranted standard qual-
ity.

INTERIOR OF OUR MANUFACTORY.

This month we solicit orders from the Wholesale Trade, for Gents' Gold and Silver Alberts, Ladies' Gold Guards and Nocklets. Our designs and patterns are the latest production, and best workmanship, all stamped and warranted. We keep all weights, sizes, and qualities of plain gold rings, our own manufacture, in stock, so that orders can be filled immediately.

Send for lowest cash prices by the quantity at once, so that orders can be filled early.
Trade Watch and Jewellery repairing receive proper and careful attention, and returned early.

WELCH & TROWERN,
36 ADELAIDE ST. WEST, TORONTO, ONT

Between Bay & Yonge Sts., nearly opposite Grand Opera House.

CLOCKS!

Just received. The LARGEST Variety of
American and French CLOCKS

Ever imported into Canada.

ALL THE LATEST STYLES.

To CASH Buyers we offer SPECIAL INDUCE-
MENTS.

Newest Styles in Yankee Jewelry
Exceedingly Cheap.

E. & A. GUNTHER,

Jordan and Melinda Sts., Toronto.

F. T. TRERBILCOCK,
WATCHMAKER AND JEWELLER,
Dealer in Sporting Goods, &c. Gold and Silver Plating done
in the best style and warranted to wear. Trade work at trade
prices. 351 RICHMOND ST. LONDON, ONT. All work
warranted.

WATCHMAKERS TAGS
1000 BEST. POST PAID. \$1
5000 " " " " 4
LONDON CARD CO. LONDON ONT

T. WHITE & SON,

Manufacturing Jewellers, Gold
and Silver Platers,

—AND—

LAPIDAIRES,

12 MELINDA ST.,

TORONTO.

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.

SHEFFIELD STERLING

FLATWARE.

The best known substitute for Sterling Silver. Dealers who want Spoons and Forks that they can guarantee to give satisfaction, should use the Sheffield Sterling Brand. For sale, wholesale only, by the Company's Canadian Agents.

ZIMMERMAN, McNAUGHT & Co., - TORONTO.

BOSS IMPROVED FILLED GOLD WATCH CASES

LEADING

In Price, In Shape,

In Style, In Construction,

and Finish

POPULAR

Because they Sell

Readily, are Guaranteed,

and Always give Satisfaction.

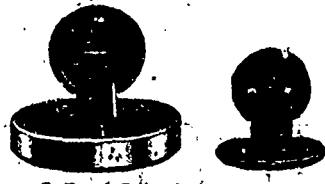
HAGSTOZ & HTORPE,

SOLE MANUFACTURERS,

19th AND BROWN ST., PHILADELPHIA, PA.



Collar and Cuff Buttons closed.



Cuff and Collar Buttons open.



NEW JEWELRY.

We desire to notify the Trade that our Mr. Lowe has just returned from the American factories where he has spent the past few weeks in selecting new and desirable goods for the fall trade.

These goods are arriving every day, and dealers in want of Novelties or regular lines, will find it to their advantage to give us a call, or delay purchasing until they are waited upon by our Travellers. We sell only reliable goods and guarantee to meet any honest competition.

ZIMMERMAN, McNAUGHT & CO.

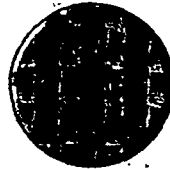
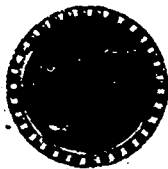
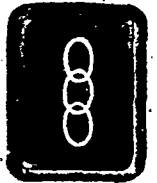
Wholesale Agents for the Dominion of Canada for the

“AMERICAN LEVER,”

PATENT NON-SEPARABLE BUTTON.

The simplest, strongest, most convenient, and most elegant Button ever offered to the trade. These celebrated Buttons are made only in the very best quality of rolled plate, and can now be had in great variety of patterns, suitable either for collars or cuffs. They are as cheap as any button of similar quality in the market, and guaranteed to give better satisfaction to the wearer.

ZIMMERMAN, McNAUGHT & CO.,
 Manufacturing and Wholesale Jewelers,
56 YONGE ST. TORONTO.



BUY THE “LANCASTER.”

The Best Value Watch in the World for the Money.

WHAT PRACTICAL MEN THINK OF IT!

CHICAGO, July 16, 1880.

I find on my route, where your watch is known, it gives A. No. 1 satisfaction. A practical watch-maker, of 30 years' experience, told me only last week that he would as soon put your lowest price 15 jewel in his pocket for time, as any Howard made.

I. F. BROWN, with Benj. Allen & Co., 127 State St., Chicago.



Dealers will consult their own interests by buying the Lancaster Watch. Send for Price List and particulars.

ZIMMERMAN, McNAUGHT & CO.,

SOLE WHOLESALE AGENTS FOR CANADA.