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THE TRADER.

TORONTO, ONTARIO, MAY, 1883

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

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THE TRADER PUBLISHING CO.,
13 Adelaide Street East, Toronto.

SPECIAL NOTICE.

To ensure insertion, changes or new advertisements must be sent to the office not later than the 20th of each month.

Editorial.

CREDIT.

It has often been said that credit is too cheap in this country, and this is probably true enough if the failures are any proof of the assertion. Be this as it may, however, one thing is certain, viz.: that if wholesale merchants were more strict in getting reliable reports of their customers' standing and ability to pay before they sold them, although it might reduce the volume of their business for awhile, they would find themselves much better off in the long run.

As a rule most merchants do get reports of new customers, but these reports, although bought and paid for in the regular way at the "character shops," are not always reliable, and should never be wholly depended upon.

In our idea one of the best things that any wholesale merchant can do, and one that he certainly should do, is to apply to the customers themselves for a statement of their own affairs, and a *bona fide* report of their standing and prospects.

This is a very common practice in England and the United States, and in both of these countries it has been found to work well both for the buyer and seller. Certainly no one knows or ought to know so well as a man himself how his own business affairs stand, and if he can give a merchant a good statement, and satisfy him that his position is sound, he may make up his mind that he will

have a good treatment in every way from the wholesale dealer as any one else.

As a rule these personal statements are honest statements, and show the giver's affairs in about as true a position as can possibly be; and it is for this reason that such reports are valuable as a basis of credit.

Of course there are exceptions to this as to every other rule, but the exceptions are generally those who lay themselves out to deliberately cheat their creditors, and these prove the correctness of the rule.

We have been told by wholesalers that they have experienced considerable difficulty in getting statements from customers of their standing. Some refuse such a request point blank, others promise it and never fulfil their promises, while others treat the request with silent contempt.

We think if retailers fairly realized how much good they might do themselves by a full and frank conference with the houses from whom they buy, they would if all right, have little or no hesitation in acceding to such a reasonable request.

What can be more reasonable than for any person who is going to sell another a lot of goods on long credit to endeavor to get accurate information as to his standing, and if he asks the purchaser what prospects he has of paying for them when the bill is due, no one should think it either insulting or unreasonable.

The wholesale merchant, when he goes to the foreign or home manufacturer to buy his goods, has first to satisfy them that he is fully worthy of credit. This is the preliminary to actual business, and unless he can do this satisfactorily, no sale is either attempted or made. An English or American house that was refused such information from a wholesale importer that was asking credit from them would at once catalogue him as having something to conceal, and therefore unworthy of credit, and this is the natural inference of any wholesale merchant when such information is refused by a retail customer.

If a merchant has nothing to conceal, an honest, above-board explanation of his affairs with the houses from whom he buys can do him no possible harm, but on the contrary must establish his credit on a firmer basis than ever.

It is plainly then in the interest of wholesale and retail merchants alike that when asked for these necessary state-

ments, the enquiries should be met in a fair and honorable spirit, and receive such treatment as they would themselves wish to receive were their place changed with the wholesale dealer or manufacturer.

It is only by a mutual confidence that a safe credit business can be done, and we know of no better way of strengthening this feeling of trust than yearly statements showing the position and the tendency of business.

If satisfactory no one can object, if unsatisfactory the sooner it is known the better, for then the customer will often get the advice and aid of persons of more experience than themselves, and at a time when it most worth having.

JEWELRY AND THE TARIFF REVISION.

The budget speech of the Minister of Finance, while on the whole a good and statesmanlike production, is in some respects unsatisfactory and illogical. The present tariff, as every one knows, was never intended to be a permanent one, but was intended to rise and fall as the necessities of trade and the production of the home manufacturer seemed to demand. To some departments of manufacture the Minister of Finance seems to have lent a particularly kindly ear, as they have fared well and got all they wanted. Others have got some slight measure of the relief they craved, while others again have got nothing at all.

In the first class the manufacturers of Snuff and Tobacco stand out as prominent examples. In reference to the reduction of the duty on these goods Mr. Tilley in his budget speech said, (the italics only are ours): "Tobacco and Snuff, the specific duty is reduced from 25 to 20 cents per pound, and I may state here, although this matter is on another paper, still I may refer to it here, owing to the fact that the United States have reduced the excise duty on tobacco and snuff from 16 to 8 cents a pound, the Government found it an absolute necessity for many reasons, though there are other articles on which they would rather relieve the people from taxation, in order to prevent smuggling into the country, which would certainly have occurred if the present rate of excise duty was left at 20 cents a pound, while the American duty was 8 cents, to reduce the duty to 12 cents a pound, so as not to encourage smuggling and the closing up of

our manufactures, which would effect our revenue very materially, and consequently we thought it desirable to ask Parliament to reduce our duty on tobacco made from foreign leaf from 20 to 12 cents, and from Canadian leaf from 8 to 2 cents; and as the amount obtained from Canadian tobaccos is small, we propose to make the rules and regulations such as will be acceptable to those who are interested in that particular industry."

The above extract is interesting as shewing what a paternal interest our Finance Minister takes in tobacco and snuff factories, and speaks strongly for his kindness of heart, if not for his soundness of head. That there is the slightest danger of our tobacco factories being closed up on account of smuggled tobacco flooding this market we do not for one moment believe, but Mr. Tilley had to give some reason for reducing the excise duty on tobacco and snuff, and the above nonsensical one was probably better than none. We stated last month that tobacco was of little value compared with its bulk, and therefore not a likely article to be a favorite commodity for smugglers. As a rule these individuals prefer articles of small bulk and much value in preference to such goods as tobacco, sugar and cheap groceries. If the Minister of Finance's logic is good for tobacco how much better it would be for jewelry, a trade that everyone knows, who understands anything about it at all, that is having its vitals eaten out by this very crime of smuggling, a crime called into existence very much by the action of the present Minister of Finance, and kept alive almost entirely by his obstinacy in refusing to make the change desired by the trade. A box of tobacco weighing about ten pounds, and worth say ten dollars, if it was smuggled in could only net the smuggler a gain of say three dollars, the amount of the duty that the Government would levy on that particular quantity of the article. A parcel of jewelry however of the same bulk, and little or no more weight, and just as easily smuggled, would be worth at least one thousand dollars if plated, and two thousand dollars if gold goods. On these goods the duty would be from two hundred to four hundred dollars, as the case might be, and this amount would represent the gain the smuggler would stand to make if he carried the operation successfully through. Now does any sane person for one moment think that people

will attempt to smuggle such goods as tobacco through in order to save a paltry three dollars, when they can with no more risk turn their attention to goods which are much more easily manipulated and gain by the same efforts from two to four hundred dollars. The Finance Minister would have people believe that smugglers pursue their calling for the love of it. We certainly think this would be the case did they go in for smuggling tobaccos and such like goods in preference to jewelry.

As a rule people smuggle to make money. The higher the duty and the less bulky the goods the better it pays, and *vice versa*. Smugglers are not fools—they can gauge the risk more accurately than outsiders, and the gains equally as accurately. To say, as our Finance Minister virtually does, that these shrewd law-breakers will knowingly smuggle such goods as tobacco in preference to jewelry is, to say the least, the veriest nonsense. If Sir Leonard Tilley's argument is tenable at all, and the tobacco trade is in the slightest degree endangered by smuggling, how much more forcibly do all his arguments apply to the jewelry trade.

The jewelry trade is not only threatened by smuggling, but is almost ruined by it. It is not imaginary evil that may be reasonably looked forward to, but a present and incontrovertible fact. Jewelry smuggling exists not because of the "grace of God," but by the "grace of our Minister of Finance," for by refusing to lower the present high rate of duty on these goods, he makes it worth their while to pursue their dangerous trade.

While not a silent partner in their business, he is decidedly an accessory before the fact, for it is entirely by his refusing to lower the duty that they are enabled to make money by smuggling.

We suppose that we should be thankful for small favors in the direction we have indicated above. Last year it was slock springs on which the duty was reduced, this year it is precious stones *unset*, uncut they are admitted free, cut they have to pay ten per cent. instead of twenty as formerly.

Probably the Finance Minister fancied that the jewelry trade would not be able to stand a sudden reduction and consequent protection from smuggling all along the line at once, and therefore resolved to give it to them in homœopathic doses, if so he has succeeded admirably.

If not, the sooner he awakes to the absurdity of his position and grants the trade the measure of relief it is entitled to, the better for the prospects of the jewelry business in this country. As matters stand at present probably not more than one-half of the jewelry brought into Canada pays duty. Of American goods this is notoriously the case, and as our jewelry manufactures are principally imitations of American goods, the present twenty per cent. tariff is worse than none at all.

If Sir Leonard Tilley would just substitute jewelry for tobacco and snuff in the extract we have made from his budget speech and tariff revision (leaving out the part where it stated that there would be a considerable loss to the revenue) he would not only state a business fact, but afford relief to a branch of business that has for years suffered more than any other from the injustice of the present tariff.

ENGLISH vs. AMERICAN PATENTS.

Probably no country in the world is so fruitful of inventions as the United States of America. Not that we think that the American people as a whole are any better or any smarter than other nations, but that their patent laws are so framed as to make it worth while to protect even the smallest inventions or improvements. In England it costs about \$775.00 to get out a patent, while in the United States the same thing is effected for the trifling sum of about \$95.00. The result of such a terrible discrepancy has been to discourage the patenting in England of all but great inventions that represent large sums of money, while in the States the effect has been to stimulate the invention, and introduce numberless small contrivances for household convenience, in addition to the more important inventions. Moreover the English inventor, even after paying the exorbitant sum demanded by the English patent laws, has still to take the patent at his own risk, and should it be found to be worthless owing to errors of description, or from the thing itself not being patentable, the fees cannot be returned.

We understand that the Society of Arts is trying to get the English patent law amended so as to bring them on a level with the Americans in this respect, and if this is done we are justly safe in predicting that very soon it will be found

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Manufacturers of the Boss Case.

that the number of patents issued in Britain fully as large if not larger than any other country in the world.

Many people think it is not worth while to patent any but the great inventions that apparently have unlimited possibilities before them. This is a great mistake, for as a matter of fact it is notorious that more money is derived from some of these apparently insignificant inventions than from the great ones, from which so much was naturally expected. From an exchange we learn that a curious investigator has recently been collecting some astonishing facts, showing the immense profits derived by persons who have taken out patents on toys and other modest trifles. People will be surprised to hear for instance that the common wooden toy-ball, with elastic string attachment, selling for a few cents in the stores, brings its patentee an income of about \$50,000 each year. The man who first thought of perforating sheets of postage stamps so that they could be separated by tearing, instead of cutting as before, realized a fortune from his happy thought. The inventor of the gummed wrapper for newspapers is a wealthy man. The "dancing Jim Crow," the black toy with which all juveniles are familiar, yields \$75,000 annually to its inventor, and the ordinary needle-threader brings \$10,000 a year to its patentee. A piece of bent wire for suspending boots from the sides of packing cases was the lucky idea of a man who has since realized a fortune from it. The gimlet-pointed screw and the rubber tips to lead pencils yield independent fortunes to their inventors, while it is said of the son of the man who first patented copper toes for boots is as well provided for as if his father had left him \$2,000,000 in United States bonds. The patentee of roller skates is \$2,000,000 richer for his invention. Col. Green, who invented the "drive well," a simple arrangement for getting water by driving a two-inch tube into the ground until water is reached, and then adding a pump, has received royalty of \$8,000,000 at least, while rubber stamps, different kinds of pens, and other small articles have been equally fruitful sources of wealth to their inventors. The greatest inventors, on the other hand, like the greatest authors, have been but poorly rewarded for their work. The best motto for those who wish to be successful inventors is Schiller's saying: "That is the truly secret which lies ever open before us; and the least seen is that which the eye constantly sees."

MONEY ORDERS.

Although our money order system is very much simpler than it formerly was, it has yet plenty of scope for improvement.

As at present made out an order is of no use until signed by the party for whom it is intended, and before it can be cashed or even deposited in a bank has to have an order endorsed on it by the Post Office department making it payable at any bank they specify. In Great Britain the money order system is a very simple one, is immediately understood, and is about as perfect as it is possible to make so important a matter. The person who desires to send a certain sum of money to another person in a different city or any other place where a money order office has been established, simply pays, at his own postoffice, the amount for which he obtains an order. This order has just the same value as a bank note for the amount which is written on its face. The cash is not transmitted from post-office to post-office—in this respect the systems in Great Britain and Canada are alike—but the order is made payable at any money order office to which it may be sent, and to any person to whom the buyer may subsequently choose to send it. In this country even the present simplified form of order requires a person of at least average intelligence and more than average experience to understand it, otherwise the clerk is obliged to tell every applicant for an order what he is obliged to write in each one of the dozen lines that have been ruled for his direction. By the English system this annoyance to the official and embarrassment to the applicant are avoided. The buyer simply pays twenty shillings for an order for one pound, and, renewing this certificate of payment, sends it to any one he may desire without giving the name of the intended recipient to the post-office officials. There is a slight risk that the order may fall into the wrong hands, but the possibility is far from being a probability. In any case there is always the opportunity of taking extra precautions whenever an order for a very large amount has been purchased with the object of sending it to persons at a distance.

But even this risk could be easily avoided by making the order payable to the person buying it or to his order in

exactly the same way as an ordinary bank check or draft. The buyer could then make it payable to the order of any person he pleased and then sign his name, after which it would be useful only to the person to whom it was endorsed. If it went astray after that it would be useless to the finder unless he chose to run the risk of penitentiary by forging the name of the party to whom it was endorsed.

We do not see why the post-office authorities could not make this or some other equally simple and effective improvement upon our present system of money orders. If they would do so it would be a great boon to merchants at small places having no bank, and as to the wholesalers to whom they remit their money.

Selected Matter.

JOHN HARRISON, THE CHRONOMETER MAKER.

(Continued from last month.)

It may here be mentioned that it was comparatively easy to determine the latitude of a ship at sea every day when the sun was visible. The latitude—that is, the distance of any spot from the equator and the pole—might be found by a simple observation with the sextant. The altitude of the sun at noon is found, and by a short calculation the position of the ship may be ascertained.

The sextant, which is the instrument universally used at sea, was gradually evolved from similar instruments used from the earliest times. The object of these instruments has always been to find the angular distance between two bodies—that is to say, the angle of two straight lines which are drawn from those bodies to meet in the observer's eye. The simplest instrument of this kind may be well represented by a pair of compasses. If the hinge is held to the eye, one leg pointed to the distant horizon, and the other leg pointed to the sun, the two legs will be separated by a certain angle, which will be the angular distance of the sun from the horizon at the moment of observation.

Until the end of the seventeenth century the instrument used was of this simple kind. It was generally a large quadrant, with one or two bars moving

John Segsworth & Co.,

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Of which we keep constantly on hand one of
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23 Scott Street, Toronto.

on a hinge—to all intents and purposes a huge pair of compasses. The direction of the sight was fixed by the use of a slit and a pointer, much as in the ordinary rifle. This instrument was vastly improved by the use of a telescope, which not only allowed fainter objects to be seen, but especially enabled the sight to be accurately directed to the object observed.

The instruments of the pre-telescopic age reached their glory in the hands of Tycho Brahe. He used magnificent instruments of the simple "pair of compasses" kind—circles, quadrants, and sextants. These were for the most part ponderous fixed instruments, and of little or no use for the purposes of navigation. But Tycho Brahe's sextant proved the forerunner of the modern instrument. The general structure is the same; but the vast improvement of the modern sextant is due, firstly, to the use of the reflecting mirror, and secondly, to the use of the telescope for accurate sighting. These improvements were due to many scientific men—to William Gascoigne, who first used the telescope, about 1640; to Robert Hooke, who, in 1660, proposed to apply it to the quadrant;* and to John Hadley, who introduced it. The modern sextant is merely a modification of Newton's or Hadley's quadrant, and its present construction seems to be perfect.

It therefore became possible accurately to determine the position of a ship at sea as regarded its latitude. But it was quite different as regarded the longitude—that is, the distance of any place from a given meridian, eastward or westward. In the case of longitude there is no fixed spot to which reference can be made. The rotation of the earth makes the existence of such a spot impossible. The question of longitude is purely a question of time. The circuit of the globe, east and west, is simply represented by twenty-four hours. Each place has its own time. It is very easy to determine the local time at any spot by observations made at that spot. But, as time is always changing, the knowledge of the local time give no idea of the position of a moving object—say, of a ship at sea. But if, in any locality,

we know the local time, and also the local time of some other locality, at that moment—say, of the Observatory at Greenwich—we can by comparing the two local times, determine the difference of local times, or, what is the same thing, the difference of longitude between the two places. It was necessary therefore to be in possession of a first-rate watch or chronometer to enable him to determine accurately the position of his ship at sea, as respected the longitude.

Before the middle of the eighteenth century good watches were comparatively unknown. The navigator mainly relied upon his Dead Reckoning, without any observation of the heavenly bodies. He depended upon the accuracy of the course which he had steered by the compass, and the measurement of the ship's velocity by an instrument called the log, as well as by combining and rectifying all the allowances for drift, lee-way, and so on, according to the trim of the ship; but all of these were liable to much uncertainty, especially when the sea was in a boisterous condition. There was another and independent course which might have been adopted—that is, by observation of the moon, which is constantly moving amongst the stars from west to east. But until the middle of the eighteenth century good lunar tables were as much unknown as good watches.

Hence a method of ascertaining the longitude with the same degree of accuracy which is attainable in respect of latitude, had for ages been the grand desideratum for men "who go down to the sea in ships." Mr. Macpherson, in his important work entitled "The Annals of Commerce," observes, "Since the year 1714, when Parliament offered a reward of £20,000 for the best method of ascertaining the longitude at sea, many schemes have been devised, but all to little or no purpose, as going generally upon wrong principles; till that Heaven-taught artist, Mr. John Harrison arose;" and by him, as Mr. Macpherson goes on to say, the difficulty was conquered, having devoted to it "the assiduous studies of a long life."

The preamble of the Act of Parliament in question runs as follows: "Whereas it is well known by all who are acquainted with the art of navigation that nothing is so much wanted and desired at sea as the discovery of longitude, for the safety and quickness of voyages, the

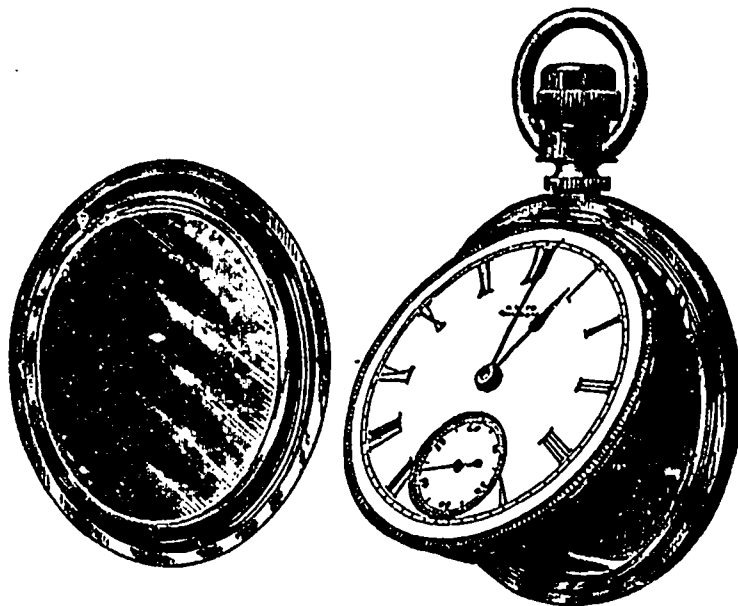
preservation of ships and the lives of men," and so on. The Act proceeds to constitute certain persons commissioners for the discovery of the longitude, with power to receive and experiment upon proposals for that purpose, and to grant sums of money not exceeding £2,000 to aid in such experiments. The clause of the Act, by which rewards are offered to such inventors or discoverers as shall succeed in enabling the longitude to be ascertained within certain limits, is as follows:—

"And for a due and sufficient encouragement to any such person or persons as shall discover a proper method for finding the said longitude, be it enacted by the authority aforesaid that the first author or authors, discoverer or discoverers, of any such method, his or their executors, administrators, or assigns, shall be entitled to, and shall have such reward as is hereinafter mentioned; that is to say, to a reward or sum of £10,000 if it determines the said longitude to one degree of a great circle, or sixty geographical miles; to £15,000 if it determines the same to two-thirds of that distance; and to £20,000 if it determines the same to one-half of the same distance; and that one moiety or half part of such reward or sum shall be due and paid when the said commissioners, or the major part of them, do agree that any such method extends to the security of ships within eighty geographical miles of the shores which are the places of the greatest danger, and the other moiety or half part when a ship, by the appointment of the said commissions, or the major part of them, shall thereby actually sail over the ocean from Great Britain to any such port in the West Indies as these commissioners, or the major part of them, shall choose or nominate for the experiment, without losing their longitude beyond the limits before mentioned."

It will, in these days, be scarcely believed that little more than a hundred and fifty years ago a prize of not less than ten thousand pounds should have been offered for a method of determining the longitude within *sixty miles*, and that double the amount should have been offered for a method of determining it within *thirty miles*! The amount of these rewards is sufficient proof of the fearful necessity for improvement which then existed in the methods of navigation. And yet, from the date of the

* Sir Isaac Newton gave his design to Edmund Halley, then Astronomer Royal. Halley laid it on one side, and it was found among his papers after his death in 1742, and twenty-five years after the death of Newton.

THE AMERICAN WATCH CO.'S PATENT DUST-PROOF STEM-WINDER,



— AND —

❖ WHAT AN IOWA JEWELER SAYS OF IT. ❖

(Extract from a letter written by C. S. RAYMOND, Clinton, Iowa, April 29, 1881:)

“I wish you would send me a Spring for the Wm. Ellery Watch. * * * * *
By the way, this Ellery is a watch I sold to a farmer, in your Screw Bezel Case, last Fall. The
“ first of January he lost the watch in the woods and found it this week in about one foot of water.
“ It had lain three months and over in snow and water, with but a slight injury to the watch—only
“ a hair spring.”

The above, as will be seen, was a very severe test, and demonstrates that, for a reasonable length of time, during which a watch might be under water, it would receive no injury whatever.

We wish to call attention to the fact, that although we do not guarantee such cases to be absolutely water-tight, many of them are, and nearly all can be made so, with a little care and attention to details, such as thoroughly cementing the glass, etc.

**As a Perfectly DUST-PROOF Stem-Winding Watch Case, we
challenge the world to produce its Equal.**

ROBBINS & APPLETON.

SOLE AGENTS,

NEW YORK.

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passing of the Act in 1714, until the year 1736, when Harrison finished his first timepiece, nothing had been done towards ascertaining the longitude more accurately, even within the wide limits specified by the Act of Parliament. Although several schemes had been projected, none of them had proved successful, and the offered reward still remained unclaimed.

To return to Harrison. After reaching his home at Barrow, after his visit to London in 1728, he began his experiments for the construction of a marine chronometer. The task was one of no small difficulty. It was necessary to provide against irregularities arising from the motion of a ship at sea, and to obviate the effect of alterations of temperature in the machine itself, as well as in the oil with which it was lubricated. A thousand obstacles presented themselves, but they were not enough to deter Harrison from grappling with the work he had set himself to perform.

(To be continued.)

BOHMER & BASSANGE.

Messrs. Bohmer & Bassange belonged to the most important of the jewelers of Paris, under the reign of Louis XVI. The jeweler had already, as it were, separated from the goldsmith. True, also he worked in the precious metal, but in a more artistic manner; he sought his merit rather in the ingenious grouping of the jewels, than in the simple manufacture of the casket that was to contain them. It was his special province to have their artistic disposition constitute the principal value of the trinket, while the setting itself was to be more useful than ornamental. This was the reason why, in Paris, next in Holland, England and in the German cities, where the goldsmith had once enjoyed a world-wide renown, the jeweler gradually occupied his place, while he was reduced to a secondary rank, and the once independent master, little by little became a factory piece-hand—a simple human machine.

The jeweler Bohmer, as furnisher for the royal court of Versailles, and chief of the firm, had sold a necklace valued at 300,000 francs, to Queen Marie Antoinette, which sum was to be paid from the pocket money of the Queen, who had a yearly income of \$100,000. Bohmer

had, besides this, furnished her a trinket of rubies and diamonds, as well as a pair of bracelets for 800,000 francs. The Queen now told the court jeweler that she had sufficient ornaments of all kinds, and desired nothing further. Bohmer, however, more merchant than artist, more of a speculator with such precious ornaments than ambition for artistic fame, nevertheless was incessantly occupied in arranging the handsomest diamonds to be found in commerce into a necklace, for the speculative purpose of selling it to the Queen. He engaged the services of a courtier, who mentioned the matter to the King. Louis XVI., charmed with the beautiful diamonds, quickly made them a present to the Queen, but Marie Antoinette persuaded her husband to consider the immense value of the trinket, beyond a million and a half of francs, and not to purchase it, wherefore it was returned to the jewelers.

A year afterward, during which time Bohmer had vainly sought to sell it in every court in Europe, he caused it to be submitted again to Louis XVI., who again destined it for a present to his spouse. The Queen refused it a second time. Immediately after this refusal, Bohmer, in his quality as court jeweler, solicited an audience with the Queen. He knelt at her feet and declared that he was a ruined man, with no other recourse than that of drowning himself. The Queen responded that the necklace, which threatened his ruination, had not been ordered by her; on the contrary, before he purchased the diamonds, she had distinctly told him that she possessed sufficient ornaments.

"I did not want to buy the necklace from yourself, nor did I wish to receive it from the King," she said; "therefore, separate it, and seek to sell it in different parcels; but above all, do not drown yourself."

From that day forward, Marie Antoinette avoided a meeting with Bohmer, and went so far as to give her repairs to another jeweler. The business appeared settled, principally with the Queen, but not for Messrs. Bohmer & Bassange, who set entire Paris into a fever of excitement with their necklace. They left no stone unturned to bring it again before the Queen. They had heard that a lady, the Countess de la Motte-Valois, was honored with great confidence by the Queen, because being a lineal descendant

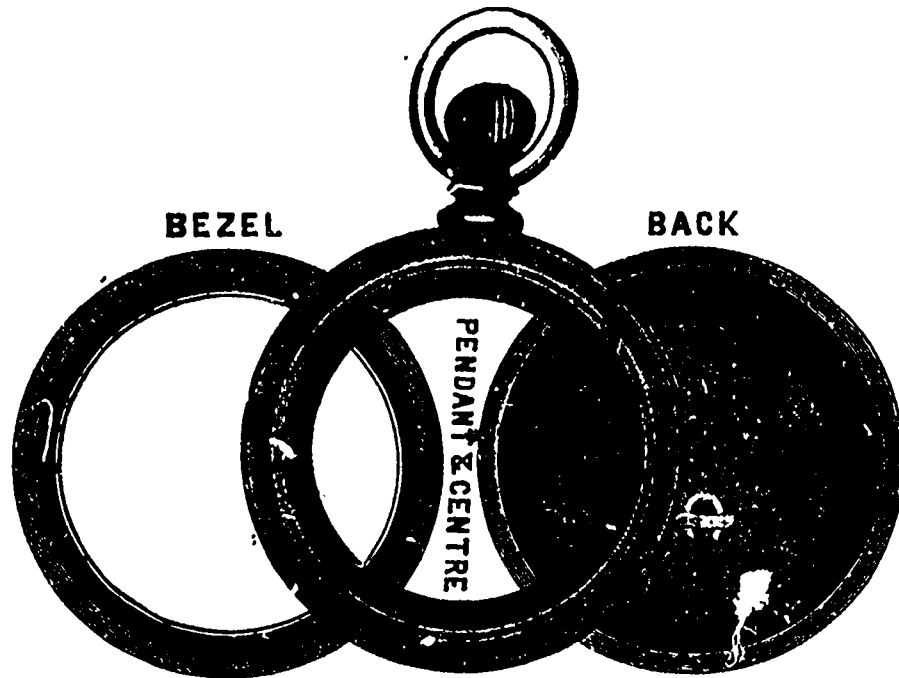
of the old royal house of Valois. The two jewelers craved an audience with the countess, for the purpose of laying the necklace before her. She granted it, and the ornament was submitted to her December 20, 1784. Apparently angry at being drawn into the business, she nevertheless promised the jewelers to intercede in their favor with the Queen.

The countess invited them on January 20, 1785, to appear at her house, and when there, she told them secretly that the Queen now desired to possess the ornament, and a nobleman of the court was commissioned by Her Majesty to conclude the bargain on her behalf. Several days afterward, she herself visited them, inspected the ornament minutely, and assured them that the purchaser on the part of the Queen would soon come.

And, indeed, on the following day, His Eminence, the Cardinal, Prince of Rohan, one of the most important personages of the court, in spite of the enmity the Queen since her marriage cherished against him, came to the jewelers. He confirmed what Madame de la Motte had said, and submitted a contract to them, written by him, according to which the necklace was to be taxed, if the value of 1,000,000 francs should appear exorbitant; the purchase sum should be paid in semi-annual installments; the acceptance of orders was stipulated, and the necklace was to be delivered on the 1st of February. The jewelers agreed to these conditions and signed them, without any name having been mentioned in the transaction; they next delivered the contract to Madame de la Motte, who returned it in two days to the Cardinal, with the express written acceptance of every clause, and signed by "Marie Antoinette, of France."

The jewelers now delivered the necklace with full confidence to the rich and mighty Cardinal, and thanked their stars that this speculation had, after all, come to a successful issue. Their ardor was rather dampened soon after, when the Cardinal came, and in the name of the Queen demanded a cutting down of 200,000 francs. The jewelers also agreed to this, in order not to open the negotiation again, and at the desire of the Cardinal, they even directed a letter of thanks to the Queen. They were not a little taken aback when informed that

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What we Claim in the "Excelsior" Patent Dust-proof Case:

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2. The only Case made hard and left hard.
3. No solder or heat to soften the gold or silver.
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5. No joints to break off.
6. The most perfect-fitting Case made.

TRADE



MARK.

Instructions to open the "Excelsior" Patent Dust-Proof Case.

Press the Crown as in any ordinary case, turn bow to the right to open Bezel, and to the left to open back.

the Queen, upon reading the letter, had exclaimed laughingly:

"What do those people wish to say? I believe they have lost their reason."

July came, and the first payment of rates failed to make its appearance. They became desperate. Bohmer paid a visit to Madame de Campan, a court lady of Marie Antoinette, and communicated to her his woe, and the payment of the installment due to them from the Queen. Madame de Campan was astonished at the information, and assured him that she had neither heard nor seen anything of the necklace.

Bassange, on his part, had gone to the Cardinal, who sought to pacify him. The Queen, he said, had no money at the present time, as he had been importuned by the Countess de la Motte, and had only handed him 80,000 francs as interests, which he at once delivered.

"Is it perhaps possible that you may be deceived by your intermediary between the Queen and yourself?" Bassange asked, who had become distrustful.

The Cardinal repelled this suspicion with indignity, to be completely undeceived a few days afterward, as well as the jeweler. Madame de Campan had recounted to the Queen what she had heard of the latest necklace story and of the demand of Mr. Bohmer, and the cleverly-arranged stupendous swindle was by this means exposed. On the 15th of August, the King caused Cardinal Rohan, in his sacred vestments, to be arrested before the entire Court, charged with the crime of having forged the name of the Queen, for the purpose of becoming possessed of the necklace.

The course of affairs speedily developed that the Cardinal was the worst deceived of the party, and had simply been a tool in the hands of the Countess de la Motte, who had used him in order to obtain the necklace. She had only too well speculated upon the several weaknesses of the prelate, viz., first of all, his amorousness, his credulity, and his desire to become a favorite of the handsome Queen; she, herself, was neither a confidant of the Queen, nor known at Court; in fact, nothing else than an impoverished adventuress under her noble name; all the letters displayed by her as coming from the Queen, the request of the latter for, and her final assent to, the purchase of the necklace as well as the ratification of the several

contract clauses, and the final signature of the Queen, had all been forged by her. She had duped the Cardinal, by making him a party to a nightly comedy, in which the poor fool thought that in the darkness he was addressing the Queen of France, when it was only a companion of the Countess de la Motte, who resembled the Queen, and silently listened in the obscurity to his amorous purlings, and at parting presented him with a rose. And during this well-calculated and better executed infatuation of the Cardinal, the Countess had sold the diamonds in London; one part for 27,000, another for 16,000, and a third for 36,000 francs; the setting for about 50,000 francs; the central part with the largest diamonds for 400,000 francs. With this sum she had purchased and furnished a house in the country in the most gorgeous manner, while in the city she inhabited a miserable garret, and here made her confession to the Cardinal.

She, of course, was likewise arrested upon the statements of the latter, as *particeps criminis*; while Rohan was let off with a few acts of humility and many costs, the Countess de la Motte was sentenced to be branded and perpetual imprisonment. She managed to escape to England after a short time, from where she directed memoirs and pamphlets, full of libellous hatred against Marie Antoinette, contributing much to that the Revolution of 1789 was personally directed against her.

The jewelers, Messrs. Bohmer & Bassange, in this manner got rid of their precious necklace, of the value of one and a half millions of francs, perhaps the greatest price paid up to that date for an article of jewelry or composed by a jeweler. The Cardinal Rohan had pledged his honor to pay for the ornament, and to shoulder both the damage and the blame. The jewelers thus received their money, but it may be expected that they had to lower the price considerably.

This is the celebrated case of the "Diamond Necklace," which has served as theme for novels, songs, poems, etc., and innocent as it was, the jewelers obtained an undying celebrity thereby, and furnished sharp weapons to the enemies of Marie Antoinette. It has been an unfortunate work of the jeweler's art, and formed a link of the chain that shackled the feet of French royalty, by

which it was dragged down from the throne, and up the steps of the scaffold, because this story became one of special scandal to the Queen. Thus will often the actions of man unintentionally be magnified into historical events, and from these insignificant details, from these little causes that produce great effects, the future student of history will astonishingly comprehend what history is.

The most remarkable natural bridge is probably the Jisrel Hajar, which spans a gorge not far from the ruins of the Temple of Adonis, in the province of the Lebanon in Syria. It is a flat piece of limestone rock from ten to fifteen feet thick, perfectly arched on the underside. The gorge is about 150 feet across, and the bridge is about 100 feet from the bed of the torrent below. The bridge is so broad and level that a good carriage road might be made over it. This bridge is surpassed in height by the natural bridge in Rockbridge county, Va., about 125 miles west of Richmond and about two miles from the James River. It extends over Cedar Creek. The height of the arch is 200 feet, and the upper surface of the bridge is 240 feet above the stream.

BUSINESS CHANGES FOR APRIL.

Samuel L. Lauer, Hardware, Amherstburg, style of firm changed to Lauer & Orton. Neveux Bros., Hardware, Windsor, dissolved, George A. Neveux continues alone. James J. Radford, jeweler, Winnipeg, assigned in trust. G. H. Pedler, Hardware, Oshawa, assigned in trust. John Kidd, Hardware, Seaforth, dead. Gordon & Scott, Hardware, Wingham, sold out to J. A. Cline & Co. Noah L. Piper, Hardware, Toronto, damaged by fire and selling out. Fred. Leas, Hardware, Woodville, admitted D. McDonald, style now Leas & McDonald. L. Marrs, Jeweler, Napanee, advertises closing out his business. W. J. Douglas, Jeweler, Pembroke, burned out. W. P. Whiffin, Hardware, Sarnia has sold out. H. Park, Jeweler, Wingham, has admitted J. R. Smith; style now Park & Smith.

BUSINESS NOTES.

V. Holtby, Jeweler, Woodstock, has admitted Mr. Crawford, his well-known manager, into partnership. The business will hereafter be carried on under the style of "Holtby & Crawford."

FURTHER developments in the Fowler failure of Winnipeg make it pretty certain that the whole thing is a bare faced attempt to

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swindle the creditors out of their money. Most of the Ontario creditors will, we understand, fight the matter to the end, and will do all the law will allow in making an example of the principals concerned in the matter.

We regret very much to learn that Mr. W. J. Douglas, Jeweler, of Pembroke, had his store burned last month. We trust he was amply covered by insurance, and will soon be ready to commence again.

Mr. W. K. McNaught, of the firm of Zimmerman, McNaught & Lowe, leaves for Europe via the Dominion Steamship "Sarnia," on the 3rd of May. He expects to be absent about three months.

JAMES J. Radford, Jeweler, Winnipeg, has assigned in trust, *raison*—not content with minding his own legitimate business, he engaged in land speculations in which he came out second best, *moral*—Jewelers should stick to their own legitimate business and leave risky speculations to other people.

ENTERPRISING FIRM.—It is an admitted fact, that it is no ordinary achievement for a new firm, in any line of trade, to enter upon a successful business career. If courage, industry and capital are required in any line of the wholesale business, that line is the jewelry. It speaks well for a firm, and it betokens that its members possess the above qualities when they achieve the success attained by the well-known jewelers, A. C. Anderson & Co., of Hamilton. They started business in 1877 in up stair rooms, since then their rapidly increasing business has forced them into removing three times, and in each case into larger premises, lately they have removed into No. 55 King St. East, which has been fitted up specially for them, and is one of the most convenient wholesale houses in Hamilton.

COMMERCIAL JURISPRUDENCE.

Every person at all conversant with the procedure of our law courts must at some time or other have been impressed by the farce of having complicated commercial cases tried by a jury of twelve enlightened (?) rural citizens, whose knowledge of mercantile affairs consists at most in their being able to reckon up the value of their wheat by the bushel or their eggs by the dozen. State to the average country juror almost any ordinary commercial problem, and he will be as completely at sea as a city merchant who had never before seen a farm would if asked to plough a field or run a threshing machine.

The merchant would, without experience, make but a poor farmer, and the farmer must likewise make but a poor show when called upon to adjudicate upon business affairs of which he has no practical knowledge whatever. The absurdity of such a system was probably never more clearly demonstrated than in the case of *Joseph & Son v. Bategay*, which arose out of the purchase from the plaintiff by the defendant of the bankrupt stock of Mrs. Aarons, of Toronto. It appears that Bategay purchased the stock and business at a price of 55 cents on the dollar, or a total of \$4,900.00, and he afterwards purchased from the plaintiffs

new goods to the amount of \$1,600.00, making a total liability of \$6,500.00. To these bankrupt and newly purchased goods he added the stock he had previously had in his store in Three Rivers, Que., and on the combined stocks, commenced his commercial career in Toronto. The business did not prove a financial success, and Bategay was unable to pay the notes due on account of the purchase money as fast as they matured and asked the plaintiffs what he should do under the circumstances. Acting upon their advice he commenced to auction off his stock, and remitted them \$200.00, as the proceeds of these sales which do not appear to have been very successful. Finding things getting worse, he then shipped the entire balance of his stock to the plaintiffs at Montreal, to be sold on his account, and the proceeds devoted towards the liquidation of his indebtedness to them. These goods were sold *en bloc*, and realized only \$1,300.00, which amount added to the \$200.00 of cash remitted as the proceeds of the auction sales made a total of \$1,500.00 received in all by the plaintiffs from Bategay on the original debt of \$6,500.00 thus showing a net loss to them of \$5,000.00 on the whole transaction.

Bategay subsequently went to Europe, and some time afterward returned to Canada, where he has since carried on a small jobbing business. Finding that he was not making any effort to pay up the balance due them, and that he repudiated the liability entirely on the ground that when he sent the balance of the stock back he had more than overpaid them, the plaintiffs commenced an action to establish their claim.

Any business man will at once from the statement above given that the defendant was without doubt indebted to the plaintiffs to the amount of \$5,000.00, the amount of the unpaid balance. The only things that could overthrow this would be in case the plaintiffs had agreed to take back the balance of the goods as payment in full of their claims, or if they had been partners with the defendant and bound to share with him the loss or gain in the transaction.

That neither of these pleas were set up is ample proof that they had no existence, and as a matter of fact the only grounds that the defence had were that the whole affair was a put up job, or in English a swindle, or that the plaintiffs should have been amply paid by the goods returned. On both of these points the evidence seems to have been clearly in favor of the plaintiffs. Strange to say, the jury returned a verdict for the defendant, almost in opposition to the facts, and we are informed upon good authority that one of the jurors since stated that they based their verdict entirely upon sympathy with a poor man against a rich one, and in opposition to law and facts.

Although this in itself would be bad enough for the plaintiffs it could probably be righted at some expense by appealing the case to some higher and more competent tribunal, but there is another aspect of this case that we have more to do with than even the curious verdict we have referred to, and it is this—In remarking upon the case and its results, one of our city papers went out of its way to abuse the plaintiffs and hold them up to public scorn as a

company of sharpers, who knowingly took advantage of and abused the confidence of a customer.

We like to see newspapers abreast of the times as regards news, and we admire one that is not afraid to expose evil because its perpetrators are wealthy and influential, but for the literary rib-stabbers, who, under the guise of society scandalmongers, peep through keyholes and play the part of eavesdroppers, even though it be done under the guise of an innocent Peek-a-boo, we have nothing but profound contempt. The motto of such papers is "Anything whether true or false, so long as it is sensational and will make the paper sell."

In this case, however, we think they have overshot their mark by firing at game which cannot be harmed by any envenomed shafts they may be able to discharge. Either Mr. Louis Davis or Mr. Schwob (both of whom were represented by the plaintiffs) are well enough known to the jewelry trade of Canada to make them safe from such attacks as the one we refer to, and it only requires the mention of their names to prove the falsity of any such accusation. Both of those gentlemen have been actively engaged in the jewelry business in Canada for half a score of years and their record has been such as to place them above even the breath of suspicion as regards anything dishonorable. Of course, to any one who knows these gentlemen such explanations are entirely unnecessary, and it is only because of the general public who do not know them may do two honorable and high-minded business men an unwitting injury that we enter into these explanations at all.

WORKSHOP NOTES.

TO REMOVE TIN FROM THE STOCK.—Just previous to pouring the gold, throw a small piece of corrosive sublimate into the pot, stir well with a long piece of pointed charcoal, and allow the pot to remain on the fire for about half a minute afterward. This will take tin from the alloy; gold containing tin will not roll without cracking. To remove emery or steel filings from gold, add a small piece of glass-gall while melting; it will collect them in the flux.

TO CLEAN BRASS.—Rub the surface of the metal with rotten stone and sweet oil, then rub off with a piece of cotton flannel, and polish with soft leather. A solution of oxalic acid rubbed over tarnished brass soon removes the tarnish, rendering the metal bright. The acid must be washed off with water, and the brass rubbed with whitening and soft leather. A mixture of muriatic acid and alum dissolved in water imparts a golden color to brass articles steeped in it for a few seconds.

TO PREPARE CHALK.—Pulverize the chalk thoroughly and then mix it with clean rain-water, in proportions of two pounds to the gallon. Stir well, and then let it stand about two minutes. In this time the gritty matter will have settled to the bottom. Slowly pour the water into another vessel, so as not to stir up the sediment. Let stand until entirely settled, and then pour off as before. The settlings in the second vessel will be prepared chalk, ready for

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use as soon as dried. Spanish whiting treated in the same way, makes a very good cleaning or polishing powder. Some watchmakers add a little crocus, and we think it an improvement; it gives the powder a nice color, at least, and therefore adds to its importance in the eyes of the uninitiated.

SALT AS A LUBRICANT.—It is said that if iron or steel wire is immersed in a solution of common salt, and allowed to remain till the temperature is the same as that of the solution, the crystals will adhere to the surface with such tenacity as to form an almost perfect lubrication for future drawings. The practice of using brine or salt and water on hot journals is an old-time one, the result being good when they are hot (not warm). The effect in both instances is probably identical.

WRITING INSCRIPTION ON METALS.—Take $\frac{1}{2}$ pound nitric and 1 oz. muriatic acid. Mix, shake well together, and it is ready for use. Cover the place you wish to mark with melted beeswax; when cold, write your inscription plainly in the wax clear to the metal, using a sharp instrument; then apply the mixed acid with a feather, carefully filling each letter. Let it remain from 1 to 10 minutes, according to appearance desired, then throw on water, which stops the process, and remove the wax.

TO TRANSFER PRINTS, ETC.—Take gum sandarac, 4 oz.; mastic, 1 oz.; Venetian turpentine, 1 oz.; alcohol, 15 oz. Digest in a bottle, frequently shaking, and it is ready for use. Directions: Use, if possible, good plate glass, of the size of the picture to be transferred, go over it with the above varnish, beginning at one side, press down the picture firmly and evenly as you proceed, so that no air can possibly lodge between; put aside, and let dry perfectly, then moisten the paper cautiously with water, and remove it piecemeal by rubbing carefully with the finger; if managed nicely a complete transfer of the picture to the glass will be effected.

SCIENCE NOTES.

Gas companies are now turning their attention in England to the manufacture of sulphate of ammonia, and the probability is that there will be more attention than ever given to this industry by manufacturers of illuminating gas. Progress in electric lighting is working a change in utilization of so-called waste products.

It has been proposed, says the *Glassware Reporter*, to employ zinc for extracting gold from auriferous rocks. The pulverized rock is gradually introduced into a bath molten zinc, which combines with the precious metal so that the refuse which rises to the top can be skimmed off. The gold may be subsequently separated by distilling the alloy, the zinc passing over and leaving the precious metal behind.

To make incombustible writing and printing paper, asbestos of the best quality is treated with potassium permanganate and then with sulphuric acid. About 95 per cent. of such asbestos is mixed with 5 per cent. of wood pulp in water containing borax and glue. A fireproof ink is made of platinum chloride and oil of lavender, mixed for writing with India ink and gum and for printing with lampblack and varnish.

There is one thing to be said about the incandescent electric light, with all its drawbacks. It neither vitiates the air nor gives the high and often unbearable temperature of gas. No doubt one of these days electric illumination of dwellings will be a usual thing in large cities.

It is almost a self-evident fact that there should be some other way of disposing of sewage than turning it into streams. But there is hardly any cause too severe for those who cut and store ice from polluted waters. Organic germs of disease are contained in such ice. People drink water cool'd by it in the summer, when the system is most liable to sickness, that may last all the year round.

M. Cornu thinks that he has ascertained by experiment that the glowing of phosphorus is due to a volatilization of its mass and a subsequent production of ozone by electrical energy generated by the volatilization of the phosphorus. Phosphorus does not glow at all in oxygen under high pressure, because, says M. Cornu, volatilization is impeded, and at a certain limit becomes too slow to ozonize the oxygen. Gases which prevent the formation of oxygen also prevent phosphorescence.

FILTERS of a cheap and efficient nature ought to be in the market. A draught of good pure water in the morning can rarely be had. Cisterns are placed so that they receive and absorb the gases of water-closets and the dust which arises from rooms during the weekly sweeping out. Fifty cents ought to be enough for a filter to supply any single person with drinkable, wholesome water. Another good thing about a filter is that the ice need never come in contact with the water, and yet make it cool enough to be palatable.

The ancients knew a great deal for which they got very little credit. A short time ago a collection of surgical instruments was dug up at Pompeii. It was evidently the property of some single establishment, and was quite elaborate. Of course the "find" was removed to the Naples Museum. One of the appliances attracted great attention. It was a long rod with a metallic plate fixed at one end at an angle of 135 degrees. At first it was thought to be a caudery for internal operations, but its resemblance to the modern laryngeal mirror suggests the probability that it was so used.

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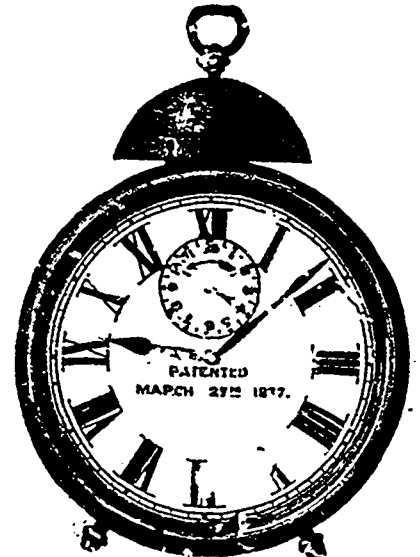
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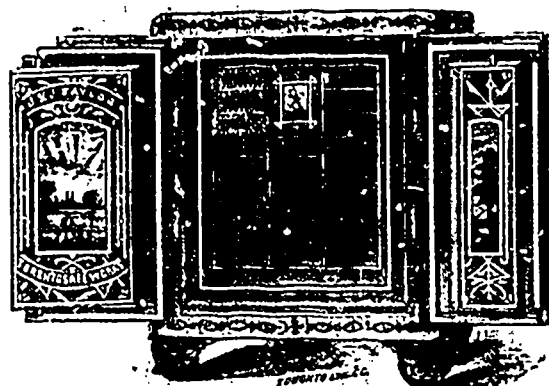
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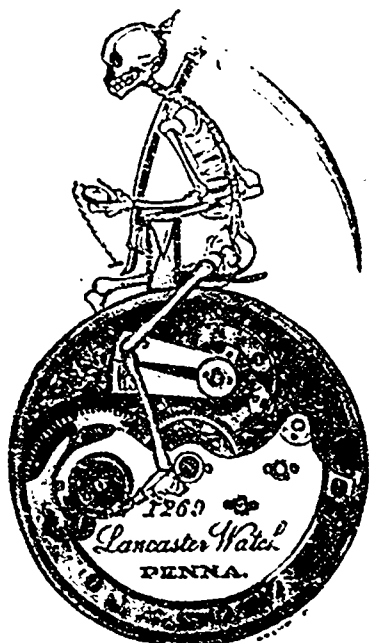
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