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OUR NOVELTIES FOR THIS SEASON are unsurpassed, and with our LARGE STOCK of

## American Movements, Gold, Silver and Filled Cases,

WITH A FULL ASSORTMENT OF

## SWISS WATCHES, REPEATERS AND CHRONOGRAPHS,

Makes a SPLENDID VARIETY to Select from.

## Our Specialty: DIAMOND and other GEM RINGS. T. H. LEE \& SON,

WHOLESALE JEWELERS,

1 ivellington st. east, - TORONTO.



## The Goldismiths' Stock Company of Canada,

(LIMITED).

## EXHIBITION MONTH.

OUR Stock for the Fall Trade is now Complete in every Department, and we ask the careful attention of the Jewelry Trade of the Dominion to the List of the various Lines enumerated on the following pages, showing the extensive character of our assortment.

These goods have been bought for Cash by buyers well acquainted with the requirements of the trade and the sources of supply both in the American and European Markets.

Customers visiting the Industrial Exhibition are invited to make our warehouse their headquarters. Desk room will be cheerfully provided for any who require it, and enclosures will be cared for or forwarded with despatch.

## WATCH DEPARTMENT.

## FILLED CASES.

$\bigcirc$RICES in these goods we cut close. Our assortment includes all desirable lines. They are fitted with Gold Bows, an essential feature, and our desire is to put in the hands of the Retailer such goods alone as will be satisfactory to the consumer. Do not destroy confidence in a really meritorious article by handling any lines that are not made by thoroughly responsible and reputable manufacturers We have some Nobby Patterns in Ladies' Goods.


## GOLD CASES.

Sec our Embossed Pattern. This is the Richest and most Artistic Design in the Market. Made in all sizes.

A Large Assortment of Fine Engraved Ladies' Cases, and Heavy Weights in Gents' Presentation Goods.

Prices in these are so low that any dealer can afford to carry a fair stock.


## SWISS WATCHES.

Special Value in Silver Chatelaines and Ladies' Hunters, also a few very nice goods for fine trade.

## LADIES' AMERICAN GOLD WATCHES.

Several hundred Choice Engraved Goods at a Specially Attractive Price. Write for a few on approval.

## MOVEMENTS.

The Regular American Goods with a few desirable lines of Swiss.

## ANSONIA LOCK D nickels．

Prices as favorable as usual．
粎粎

## NOVELTIES．

Many New and Saleable Goods．
料粎

## ENAMELLED IRON．

Lower in price，superior in finish，and more artistic in design than any Fancy Mantel Goods in the Market．See the new

Patterns in Pillar Designs．

## 

## WALNUTS．

One Day and Eight Day Specials，at prices as low as any offered．米粠米

## PRESENTATION CLOCKS．

Some elegant Silver Finish Goods．The newest and handsomest style of Clock Decoration yet produced；also a few fine things in Oak，with Antique Brass Trimmings．
Remember that Ansonia Clocks for quality of material，beauty of design and mechanical construction are unexcelled．A merchant can work up a more permanent and profitable trade by steadily pushing Ansonia than handling a mixed line of goccis．

We are the Canadian Agents．

## JEL'ELRY DEPARTMENT:

## ENGLISH GOLD GOODS.

()wr importation of (iem Rings is the choicest we have hitherto made; they are superion 10 domestic produrtions in styband finish, and, where fine workmanship is prominent, in value. The assortment was selected from the hest manufacturers of Birmingham, and in the highest degree morits your careful inspection.

A rey complete range of LADIEN'VICTORIAS, BRACELETS, BROOCHES, der, in the latest designs.


## ENGLISH SILVER GOODS.

BROOCHES, MROPS, BAR PINS, BANGLES in endless variety.

## AMERICAN JEWELRY.

He show, we laink, without exagreration, the most extensive assortment in Canada, novelty after novelty in every class of goods. We recognize fully that this is a very important department and have supphed it most liberally with the freshest goods obtainable.

Our lik MALTESE CROSS ROLL PLATE CHAIN still leads the market in value, and our assortment of one humdred patterns gives the most critical, abundant choice.

We show Three Mundred Designs in BROOCHES, representing thoroughly all grades.
One Lumdred Patterus of LADIES' VICTORIAS with the newest and nobbiest Moonstone and Rosaline set charms in heart shapes, etc. Altogether the completeness of this department in every detail has only heen accomplished by the closest attention to the growing demand for this class of rootls.


> Lum Cabefthey Thboch orr Travelams' Sampes.


NO. 65. $: ~$ OCADE, EMBOSSED TILTING PITCHER SET, \$76.00.
Manufactories: Meriden, Conn., U. S., and Hamilton, Ont., Canada.

# OUR • NEW $\cdot$ FACTORY 

The Largest Silver Plate Factory in Canada and
the Third Largest on this Continent.


We expect to occupy the above Building in July.

## THE RCME SILVER COMPANY,

'TORONTO.


TORONTO, ONT., SEPTEMBER, 1890.
The recoraleed organ of the Jewelry and kindred Induslrial Trades of Canada. published on the firm of every monith, and oent free ko every dealer iu Jewelry, and kndred zoods in the Dominion of Cunade. Price to all otbors $\$ 1.00$ per annuni, payable stricily in advance.

Our rates sor udvertising will be lound very low, and will be made known upos. applicaticu.

We shall be dad to receive correspondence from all parts, and will publish such letters as will be of interest to the riade. We do not, hovever, hold ourselves responsible for the opinions of our correspondents. The name and address must inrariably accotnpany the cocomunication, not necessarily for pubtication, bat as a guaranice.

All busiuess and other communications should be addressed to
THE TRADER PUBLISHING CO., 67 ADELAIDE ST, W., TORONTO, ONT.

## SPECIAL NOTICE.

So enarse Inocition, changes or new adverticomentes munt raach this office not inter than the soth of enoh month.

## Editerial?

## THE OUTLOOK.

yotHE business outlook has improved considerably, since our last issue, mainly on account of the crops in many sections turning out better than was anticipated, and the steady advance in the prices of nearly all agricultural products.

The prospects are now excellent for a first class fall trade, and there is a strong probability that the improvement will continue for a year to come.

Wholesale men generally find a great improvement in business, and while, as a rule, there is less sppeculative buying on the part of the retail trade than there was a year ago, the volume of actual business is considerably greater than at the same season last year.

In view of the continued favorable outlook, we see no reason to change the opinion regarding trade expressed in these columns last month.

## OUR TWELFTH YEAR.

幐ITH the present issue The Trader enters upon the twelfth year of its existence.

We do not propose to say very much in commemoration of this event, except that the past policy of improving our journal as fast as circumstances will permit, will be rigidly adhered to, and we trust that our advance towards the goal of perfection will be at least as rapid in the future as it has heretofore been.

Without any.egotism, we think that The Trader has served the jewelry trade of Canada fatthfully and well during the eleven years of its existence, and no other branch of business
that we know of in the Dominion has been better, if as well served in a journalistic way, by organs which cost their individual members from $\$ 1.00$ to $\$ 200$ a year, than our Canadian jewelers have by The Trader, free of all expense.

As our readers well know, we propose that every legitimate jeweler in Canada, from the Atlantic to the Pacific, shall have The Trader pat into his hands, on the fist day of every month, free of expense.

We have always, to the best of our ability, advocated what was to the interests of the trade so far as we knew, and we propose to continue the same course in the future.

The Trader has always aimed to be the organ of the entire jewelry trade, and it has never allowed itself to become the tool of any clique or faction in the business.

No matter how much any member of the craft differs fiom us, he can always he just as sure of space in our columns as if he was one of our warmest supporters.

We are thorough believers in ventilation, and if any of the ideas which we advocate are not tenable, we invite our readers to show the trade wherein they are in error.

In conclusion we ask the continued cordial co-operation and support of every one of our readers, is order to make The Trader not only the best trade paper in Canada, but if possible, the best in America.

If you know any item of news which you think would be of interest to the trade, you can help us materially by sending it along.

Don't hide your light under a bushel, but give your con. freres in the craft a chance to see what you are doing and to learn your ideas on live trade topics.

## AN ADVANCE IN SILVER GOODS.

空S we predicted in our last issue, the advance in silver bullion, caused principally by the passage of the United States Silver Bill, has been so decided as to force the manufacturers of all kinds of sterling silver ware to advance the price of their goods.

A few months ago silver bullion could have been purchased in large quantities from the United States mint for about 92 cents per ounce. To day it has reached $\$ 1.20$ per ounce, an advance of 30 per cent. on the lowest figures. Even this does not show the extent of the rise, for it is expected by many well-informed people that it will reach $\$ 1.29$ before a halt is called in its upward tendency.

Be this as it may, the fact remains that it has already advanced high enough to work a serious revolution in every branch of manufacture using much of this precious metal.

To the maker of sterling flatware it means an increased cost of $\$ 2.00$ to $\$ 3.00$ on the material which goes into every dozen of tea spoons he makes, while the advance on dessert and table sizes would be from $\$ 4.00$ to $\$ 8.00$ according to their weight. In silver watch cases, this advance in bullion is a serious thing and means that the material in a 3 ounce case now costs the manufacturer at least 60 cents more than it did a few months ago, while on a 4 ounce case the rise amounts to over 90 cents, and so on in proportion as the weights increase.

Under these circumstances it is not to be wondered at, that a decided advance took place early last month in all lines of

## IEE TE IME O TV AB In.

## George eitulas,

TMPORTER OF

## WATCHESANDIAMONDS HAS REMIOVED

From

## 18 Manning Arcaile,

io

TORONTO.

By the removal as above, I have gained larger quarters, more convenient location to the trade both in and out of the city.

I am in better shape to fill orders than ever before, having greatly increased my Stock, which is now complete for the Fall Trade.

I have some desirable lines to offer at special prices.
It will be worth your while to inspect my Stock when in the city before placing your orders.

## GEORGE CHILLAS,

33 Wellington Street East, - TORONTO.
silver watch cases, sterling silver flat ware and other silver goods where the value of the bullion used formed an important factor in their cost.

Whether this advance will be permanent remains to be seen, but it is hardly probable that there will be any change towards lower prices for a considerable time to come.

Our friends in the retail jewelry trade will be well advised, therefore, to at once advance the price of all the saleable silver goods they have in stock, for they may rest assured that they cannot replace them for anything like the same money.

## CANADIAN RETAILERS' ASSOCIATION.

图N more than one occasion we have pointed out that if the Canadian Retallers' Association is ever to amount to anything beyond a mere name, it should provide in some way for at least one meeting a year, at which the outside trade could have a chance to be represented.

So far as we can see, the best place for any such meeting is the City of Toronto, and the best time that during which our Industrial Exhibition is being held.

The time is particularly opportune, not only on account of the very low railway and steamboat fares, at which every jeweler who so desires can reach the city, but because, as a matter of fact, Toronto is during fair time crowded with retail jewelers from all parts of Canada.

It is for these reasons that we would urge the second week of the Exhibition as a most opportune time to get our Canadian Retail Jewelers together, and discuss in session some of the live questions that are of vital interest to the trade.

We are sure that the matter has only to be brought to the notice of the able President and Secretary of the old Association, in order to cause them to call such a meeting. What do you say, gentlemen?

## CANADA'S GREAT FAIR.

圆HE Toronto Industrial Exhibition which will be held in this city, from the Sth to the 2oth of September, promises to be the largest and best that the Associa tion has ever held.

So far, the entries both in live stock, agricultural products, and manufactured goods, are considerably in excess of those of any former exhibition, and no doubt the quality will be fully up to their usual high standard of excellence.

Outside of the Exhibition proper, the management have provided a series of daily entertainments and amusements, which they confidently believe to be far ahead of any of their previous efforts in this direction. ioy aim to amuse, as wellas to instruct the general public, and from the manner in which their athletic and other entertainments have been patronized heretofore, it is impossible to question the fact that they have pretty thoroughly gauged the public taste in this way.

We know that there are not wanting those who hold that all sorts of ambsements should be rigidly excluded from exhibitions of this kind, but in spite of these objections, we cannot but confess to a weakness for amusement as well as instruction, and the success of Canada's great fair makes it plain that even our staid, solid friends from the rural districts, can see some-
thing equaily worth investigating in the programme of free amusements, as they can in the exhibits of live stock or mangel wurtzel. If success is the test test of fitness, the management will do well to go on in the line they have struck out for them. selves.
'Io our friends in the jewelry trade, we may say that special rates will be made on all the railways during the continuance of the Exhibition, and they will have no better opportunity of making a personal visit to this market this year. The season is opportune. Our wholesale men have made large prepa:ations for their reception, and are prepared to show them the newest and best goods in every line that the market of the world can furnish.

In our opinion it will pay any and every jeweler to make a personal investigation of this market at least once a year. Not only can they get new goods, but they can pick up new ideas which will be useful to them in their own business and well repay them for the money spent on the trip. Come and see us.

## COSMIC TIME.

NokO'I many people are aware that to a Canadian, Mr. Sandford Fleming, the eminent railway engineer of the Dominion Government, the world owes what is known as the cosmic system of time notation.

The fundamental iden of this system, as outlined by Mr. Fleming, in a paper read by him before the Canadian Institute in the winter of $\mathbf{1 8 8 8}-9$, is the adoption by every country in the universe of the same meridian as a basis for the world's time. His proposal was that the 180 th meridian from Greenwich, should be universally agreed upon as the common starting point in the system, but as this practically involved a recognition of the British standard of time notation, but few countries could be found unprejudiced enough to sink their feeling of perhaps pardonable national vanity and consent to substitute practically what would be a British starting point instead of one in their own country.

The Canadian Institute, recognizing the great importance of Mr. Fleming's scheme, entered heartily into his views, uith the result that before many months had passed they had brought the subject prominently before the most influential scientific societies of Europe and America, as well as the respective governments of the countries to which they belonged.

The system was endorsed by the International Geographical Congress held in Vienna, Austria, in 1881, at which meeting Canada was ably represented by Mr. Sandford Fleming. In the year 1884 , representatives from all the principal countries in the world met at Washington, U. S., by special invitation, to discuss Mr. Fleming's system, and here again it received so thorough and unequivocal an endorsement as to put its ultimate success beyond a peradventure. Since that time it has also been practically adopted by the Prussian Gorrament, who have fixed upon the 15 th meridian east of Greenwich as the standard of time for that country, and now that they have done so, it is probable that other European countries will quickly follow in their wake.

Although the Canadian Pacific Railway was the first to adopt the twenty four hour system of time notation on their

##  WATCHES.







## MANUFACTURED BY THE

# Merican Waltham $W$ atch $C \underline{O}$ WAITHAM, - - MASS. 

35 NOTE. For the convenience of the Canadian trade we have estabished a Branch Office at No. 185 St. James Street. Nontreal. The goods will be, as heretofore, s ld to Jobbers only.
ume table. it was not long before others followed suit, and it is haghly prutable that before another decade shall have passed wet our he. ais, the twenty-four hour time tables and system of ume belt will be the rule instead of the exception for the quidance of railway travellers the world over.

Inded the advantages of this system were so apparent, that as far back as $188_{3}$ the railway companies of the United States and Canad. convened a congress of practical railway men, and there and then inaugurated the system of dividing the northern half of the continent into time belts fifteen degrees apat, in exi ha which there should be only one common time instead of having the actual time change with every mile as had formerly been the case. This new order of time notation, athough it somewhat disturbed the equilibrium of the days as compared with the old system, has proved itself so thoroughly practical. that it has now ceased to excite etther comment or enqury, and if our people ever think of it at all, it is to wonder why it "N not adopted sooner.

The advantages of the cosmic system, embracing as it now does, the tome belt and twenty-four systems of notation, are so appatent as to make it high!y proballe that it will only be a question of tume when it will he aniversally adopted. Any ferson tho ever studed an old railway time table of twenty or even ien years ago, with its a.m.'s and p.m.'s, and its foot notes ex. planing that Montreal or New York time was half an hour faster than loronto time and that you should govern yourself accordingly, (which meant that you should be on hand half an hour before the time specified on the time table), and compares tt wh our present half-way system, can see how great an adrance we have made, and how much further we have to go beiote we will reap the full benefits of the common-sense ixenty.four hour system of time notation.

It is sadd that the present anti and post n:eridian system of tume notation causes the Western Union Telegraph Company of the Cinted States to telegraph over one hundred and fifty mithons of unnecessary letters every year, and there is also a cortesponding waste of habor and money in ever; department oibusiness trom the same cause the sooner, therefore, that the system in its entirety is adop,ted the hetter for the public in gencral and the jewelry trade in particular, who would then nase the job of supplying twenty-four hour dials for all watches already in use. or furnishing new ones made specially in accord xuh the new system.

\section*{Correspondence.

\section*{$=$

## $=$ <br> APPRECIATES A GOOD THING.

## Editor Trader-Sir:

$R$ Trader seems to get there, and it is no doubt carcfully read by the trade. We were much pleased with the response to our special ad. in your July number, and were greatly surprised at the number of our rustomers who bought "The Pack." We have to thank The: Trabfe as being the medium of reaching our trade this tume as we traced these sales as the direct tesult of our Traderad. In some caics the page was cut out of The Traderand mailed to us. Yours truly,
Toronto, July 24,1890 .

YOU SHALL HAVE IT.

## Editor Trader-Sir:

$$
\ldots .
$$

OULD like to receive Tut Trader. As I have started business here, kindly oblige by sending me your valuable paper.

Yours,
Thedford, Ont., Aug. 13, 1890.
Jomn Munns.

WITH PLEASURE.


## Editor Trader--Sik:

 you send The Traber.It is a very valuable help to any jeweler. Yours truly,
W. T. Lewis,

Arkona, Aug. 20, 1890.
Jeweler.

## WHAT IT IS WORTH.



## Editor Trader-Sir:

0) guinea?

Chas. P. Morgan.
Trurn, N S., Aug. 16. 1890.
Asswer.-According to our Toronto brokers they are worth $\$ 2.621 / 2$. Emp. Traner

## AS OTHERS SEE US.



Editor Trader,-Sir :
retail jewelers of Canada owe you a debt which it will take them a long time to repay, for the able manner in which you have, during the past ten years, endeavored to reform the abuses which we all must admit have existed in the trade, as well as for supplying us free with a first-class trade journal, fully equal to any published in the States at $\$ 200$ per annum. For my own part, I would glad!; pay you for your journal, as it has come to be so necessary for me now that $\$ 1000$ a year would not make me do without it. However, as you don't take any pay for it, I tender you my thanks. Those articles of "E.actlsior's" h ve been of great benefit to me, and I have picked up a good many urinkles from their careful perusal. I am glad to see that you have added an opheal department to your journal, under the direc. tion of such a competent man as Dr. Orens seems to be. It will be very useful to ine, I know; and I shall avail msself frequently (if you will allow me) of his knowledge about some bad eye cases which have puzzled ne for some time past. Wishing you continued success,

I am, yours truly,
London, Aug. 20, 1890.
Balance.
[We are sure Dr. Orens will be only too glad to answer any queries that "Balance" or any other member of the craft may send him for solution. Send along your conundrums. gentemen-Ed. Trader.]


NEW ISSUE.


## B. W. RAYMOND

## NICKEL, OPEN FACE,

## PENDANT SETTING

## UHEQUALLED FOR RAILROAD PURPOSES.

MORRESPONDING in quality and price with our Nickel Hunting $B$. $W$ (, Raymond movement. Delivery of above grade has already been made to the Jobbers. who will be pleased to supply the Trade.

$$
\text { Gencral Office, } \quad-\quad 76 \text { Monroe Street, Chicugo. }
$$

NEW YORK OFFICE, 11 JOHN STREET. FACTORIES, ELGIN, ILLINOIS.

## OUR MONTREAL LETTER.

## From our Special Correspondent.


nws, though one hears it so often, it is a great pity that it is not-one thing, there is no doubt about its reliability, and it is always well to be reliable. Tue Trader is reliable, which is one of the reasons that it is regaided in this district as the guide, philosopher and friend of the trade.
But how is business with the jewelers ?
The countryman's opinion of the lecture ahout expresses itMark Twan, America's great - some say one thing and some another, huld to your own opinion, it don't matter-was billed a lecture an Bor.on, and a countryman went there specially to hearhm by mistake he got into the wrong hall and heard a lemure by loseph Cook, under the impression that the lecturer mas Twain. On reaching home he was accosted by a neighbor : "Hill, Hiram, been to Bosion?" "Yes." "Hear Twain?" "Yes, that's what I went for." "Funny ?" "Y-e-s, but not wsolldanned funny." Business is that way-quiet, but not so 3xfulquict. The jewclers, with all other business men here, ied the effects of the efflux of the population to the country durng the cunmer months. All who can go, must, and a great many can, not for a couple of weeks visiting, but the family the up therr abode in the country for the season, either at a contenient distance so that the male portion can come in and wit of the cty each day for business, or at a more remote point, ahen the sad male portion is left to take care of the house all ty himself and generally do the best he can i.etters ruceived from your city, describe it as just a lovely summer resort, so thuld Turunto be in any need of a first-class certificate in this repect, $1 t$ could easily be secured from Montreal-of course, difer that no one could possibly think of any jealousy at this end. It is doubtful if the presence of eastern people in Totonto will help your jewelers to any extent, they will scarcely see an improvement in the home display.

One of our young, handsome, and consequently gay wholeouters, apthars to have "a pull" on a very large scale at a place by name, Notre Dame au Portage-just where Notre bane du lortage is, I don't know, but it is somewhere, be cause he gees there, not once, but twice and perhaps three times 2": "n the whe season. The fish and by stortes are very very '3ll winh :wimelf as the hero adorning the tale. The adornment is all right and he is a hero anywhere. but about the fish 2nd the lies-your correspondent is young, and with youth is mocence, and he dislikes to even suspect. Can you, Mr. Edttor, ca: anyone say, would a Montreai wholesale jeweler be Hitel :o $n$ more than enough even when fish, flies and himself, mowdually and collectively are the theme? If not, and Iou should desire a fishing ground where immense hauls can胃 made, the place is Notre Dame du Portage, but first enquire On St. James strect for the best " holes."

The s.-n'al Canadian representative of the big yankee watch hompany is on the Mlaine coast, searching for main strength fod catch -s cod-fish. The boats there are large, or his fish tory kou it soon verify itself. He would be brought home
dead; the catch would swamp an ordinary boat sure. When telling his cod-fish experience he always remembers to explain about the boat.

A leading and popular jeweler does not require to go away off to fish, there is sp-rt enough for him near home. He has his summer residence at a pretty spot on the st. I.awreace, and almost any evening his boat may be seen skimming the waves in true Hanlan-at-his-best style, himself and wife the occupants. Forgeting all about watches and jewelry, he is away for a two to three hour's fish. There is one thing about him, he is honest and catches-nothing,-his wife has all the luck.

To come back again to business, the absence of so many from the city is decidedly against trade, and is scarcely made up by the presence of American visitors and American cash, on the hunt for souvenirs and presents for their friends at home, brought all the way from Canada. When they are wise to discern there is no want of opportunities to buy specimens of genuine art and Canadian art too, but often, very often, their tastes lead them to select the stuff that has paid the legitimate duty. The blame attaches to them of course, not to the jeweler. He has the goods and it is his business to sell : besides, how does he know they are Americans on the search for the labors of Canadian artists and artizans; and further, an inadvertent remark by himainht dispell some delightfully romantic vision and-" spoil" a sale. No, the buyer is to blame if any one is, he might take the jeweler into his confidence and tell the whole story, but he does not. Visitors to the culy are row the favoring breeze, and our jewelers have all sails set, and magnificent sails they are. One would alnost wonder how a better display could be made, but Montreal jewelers are alve to business and the wants of business, and any novelties the jobbers have to offer are readily bought.

Stocks in the wholesale houses are about complete, and the b. it that the Foreign, American or Domesuc factories can produce are on show. Travellers are nearly all on the road, and better sales are reported than were antucipated. The lighter than usual spring purchases, together with cenfidence for the coming season, is the reason for this. The advance in silver cases has made considerable of a flurry in these hnes, but many in the trade, trusting to luck and compettion to keep old rates open, ate allowing the opportunity of buying cheap silver cases to pass.

Our jobbers may be said to have hung out the green signal of caution, that is to say, that while there is no element of danger in sight and the track is clear so far as can be seen, faur cation is deemed best forboth buyer and seller. Competition is quite keen enough now at most points, and profits are sufficiently low, without the still further reduction and loss of trade caused by auction and other forced sales in their midst, always a result of reckless buying. Encourage legitimate and profit. able trade, discourage all else is about the idea.

Montreal, Aug. 14 th, 1890 .
Gengral Directions for Bronzing. - The choice of bronze powders is of course determined by the degree of brilliancy you wish to obtain. The puwder is mixed with strong gum water or isinglass. and laid on with a brush or pencil, and not so dry as to have still a certain slamminess; a piece of soft leather, wrapped round the finger, is dipped into the powder and rubbed over the work, when this has all been covered with the bronze, it must be left to dry. and the loose powder is then cleared away with a hair pencil.


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## EDMUND SCHEUER, TORONTO,

Sole Agent for Canada

PRACTICALHINTS ON WATCH REPAIRING.
Hy EXCELSIOR.

## I in: Duphem Escapmant.-Continued.

(522) Po try the sifety of the impulse drop, we move the bulance very slowly forward till the repose tooth drops from the noth, then hold it there. The finger $F$ should have passed the mpule tooth and be $10^{\circ}$ in front, readj to receive it. If the tooth does not strike the finger at all, but passes it without touching, und the next repose tooth falls upon the roller, it shows that the finger is not properly placed (526). It is too far from, or forms too great an angle with, the notch, and should be moved forward or towards the notch till, when the balance is heid as ahove, the impulse tooth will strike the finger, and not merely on tts point but safely on its face. On the other hand, If the pount of the finger passes the circle of the impulse tooth much before the repose tooth drops from the notch, $n$ is endently too far forward, or too near the notch. This will also be ween by the distance that the whed drops before the tooth reat hes the finger. 'This should be about $10^{\circ}$, which, in the Chnese duplex, will be about the distance between the points of the double teeth.
(523) We are now prepared to select an impulse wheel. In wecton (19S) we found that an escape wheel, although correct tor the wheel and roller action, might not be sutable for the wheel and pallet action, designed for tine escapement. The mpulse whee may be larger or smaller than the old one was. In the if rmer case, the finger will prove too long, in the latter, too short supposing the finger to have been conrected as orignally made, then after drawing the centre distance ad and arcle $\because$. (lig. 33,) as already directed, (516,) we measure

the lensith of the finger, and increase that in the same ratio. Set the i : iders to that distance, and with one point one mark the curve:: Now lay off the angle of the small-lift, one-half on each side of line $d e$, by the lines eav, cal, (Fig. 31,) and draw line da
to the crossing of cat and the curve .r.3. This gwes the position of the repose tooth. 'Then, $12^{\circ}$ to the right, draw line $d p$ ', and where it crosses the curve ss, at $P$, is the point of the impulse tooth, and $d P$ is the radius of the impulse wheel.
(52.4) Having an escape wheel we think suitable, we fis it in one jaw of the depthing tool, and the balance and finger in the other, -the jaws having prevously been set to the proper centre distance in the watch, and verify its acton by trial, as directed for tenting the length of the finger (520). If the mm . pulse tooth in this test does not come at the proper distance from the point of the inger, and another whecl cannot be got, the fault, when slight, can be remedied by dressing off a finger that is too long, or moving it towards ihe notch (526) when too short, till the impulse touth drops safely on its face. But the latter change should not be allowed unless the deficiency of length is slight: a longer finger should be fitted in. The movement beong intended to effect certain results, and the escapehent executed in accordance with that design, any materal devation from the original sizes must be presumed to be injurious, unless the superority of the results to be obtamed thereby is clear bejond question.
(525) The mode of selecting a new finger as clearly indeated in sections ( 523 ), (524), the only difference being that we substitute the me:asurement of the impulse wheel for that of the finger, and through the crossing of its carcle $y$, and the line $d \rho^{\prime}$, ( lig. 33), we draw the curve $\approx z$, whe: cl will be the length of the finger, from the centre of its sncket to the point A finger already on the balance staff is measured by taking the distance from the point to the further side of the roller, then deductung $\because$ the diameter of the roller. The finger is formed whth a socket, which should fit tightly upon the staff, above the roller. The point should be a jewel, set in the metal of the finger, but it is generally made entirely of steel. The front face should form a line to the centre, although many makers vary somewhat from this rule. The point should be as sharp as consistent with strength. For turning the finger on the staff, use the ordinary two-hole hand tongs.
( 526 ) To test the length of the finger, let a repose tooth lock on the roller, as shown in lig. 33 , with the point of the finger at the righthand $z$. Then turn it towards the left thll its face is in the line eai, when the point should barely clear the tooth $P$. In the Chinese duplex, it will be well to test the clearance on both sides of the line of centres, i. e., with two impulse teeth. The test on the right side should be made when the first repose tooth of a pair is locked on the roller, during the return vibration of the balance, as above described; wh the left side, when the second repose tooth is in the notch, during the forward vibration. If the finger is shorter than above directed, the escajenent will still be safe if the impulse tooth strikes fairly on its face. Sometimes the finger is short, and also so far from the notch that, when the balance is moved slowly forward, the impulse tooth does not strike the finger, but passes by and another repose tooth drops upon the roller. In this case, the escapement may be made safe by moving the finger towards the notch till the impulse tooth will be sure to strake fairly upon its face. Wut any such expedient cannot remed; the loss in the large lift which results from a short finger, and it should be replaced by a longer one unless the balance still has an ample vibration-at least $180^{\circ}$, or half a turn at the

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Have placed upon the Market
a SEven Jeweled, six size, niakel meyement, known as No. 149.

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Will THIS MONTH place upon the Market
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returned to you by any customer as not being a thoroughly first class article, don't hesitate one moment, but give him in exchange the best you have, and send the Chain back to us by mail. By return of post we will replace it with another free of any charge, and return to you also the postage you paid on your parcel. We trust that such a circumstance will never occur, but we want the retail Jewellery Trade of Canada to understand and know that we are here to build up a name second to none in the world for our Rolled Plate Chains, and to feel that when they sell a chain of our manufacture, an article is leaving their store that will only reflect credit on it.

> Yours respectfully,

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end of the ap hours running. Many writers advocate vibrations of doubl the magnitude here specified, but these very large vibratoon are not as much in favor with practical workmen as formeri) Some special directions about rating and adjusting the duple escapement will be found in sections (125) to (127). I would add that a light balance never regulates well in the duplea. The vibrations are too large, and the watch is easily made to "rip" by jumping, riding and even by carrying, and, when stirted, wall continue to trip for a number of times; while a heavy balance, if accidently caused to trip, will do so only once or twice and then stop. 'The impulse being given in the duple at sreat mechanical advantage, it admits of and requires a heaver balance than the cylinder escapement or detached lever
( 527 ) In testing the duplex escapement in the angle-meter, espectall) if the balance cock is omitted, (4.7), be careful not to wind up the mainspring, but press the train forward with the finger nail in the main wheel, while moving the balance by the rentual rul $d$, (Fig. 27). This is advisable from the danger of forgetung to let the mainspring down, or put a bristle in the escape wheel, before taking off the cock or raising the arbor of the angle-meter, which would be liable to bend the teeth of the wheel, and even break the roller jewel. This tool affords a very easy and accurate means of testing the escapement. Get the balance prot hole exactly over $B,\left(451,45^{2}\right)$, and fasten the movement securely. Use a claw with a light spring, like $m$, (fig. 29), clasping one of the balance arms near the rim but not turching it. Get the repose tooth outside of the roller, and then the balance at the point of rest. Set the pointer at the $O$ in the centre of the scale, move the balance back till the tooth drops into the notch and note the number of degrees on the scale. Turn the balance forward till the tooth drops from the notch, and again observe the scale The number of degrees between the two extrenes gives the small-ift. If the point of rest is mudway between the two extremes, the watch is in beat. The wheel and roller action is now known.
(5:5) To test the wheel and pallet action, move the balance back ull the tooth will drop into the notch, then set the pointer at the $U$ at the nearest end of the scale. Turn the balance formard thll the touth leaves the notch, and the impulse tooth strikes the finger, hold it there and observe the degrees on the scale. This is the small-lift, as before. Then move the balance luck till the tooth drops off the finger, and the number of degrees so moved over will be the distance the finger was in adrance of the impulse tooth when the repose tooth left the notch, or the amount of the impulse drop. As already stated this should be $10^{\circ}$. But if the drop thus formed is less than that, the finger may be too far from the notch, (the escapement angle incorrect) or the fi iger may be too short. To test the proper length, get the parts in the position directed in (526) and observe if there is the proper clearance. If so, the escapement angle should be corrected, (522). Then again move the balance forward till the tooth strikes the finger, note the degrees, and muse the balance on till the tooth drops off the finger. The dutance from the former observation to this drop will be the large-lift. There is seldom any need of testing the escape whee in this tool, except to try the truth of its division into lecth and spaces, which it will do very minutely. In fact the foregoing tests of the balance, for the small-lift, will
detect any inequality in the length of the repose tecth by a variation in the amount of the small lift. The amount of the second drop, from the impulse tooth leaving the finger to the repose tooth resting on the roller, is not materal, provided it is enough to carry the impulse tooth which was last in action out of reach of the finger, and this can be told by the eye. Instead of using the angle-meter, the foregoing tests can be made by means of a sector on the depthing tool, $(336,406)$, or even by simple calculation, $(308,405)$, but neither so easily nor accurately.
(529) A number of enquiries for details have been received, and most of them answered in connection with ther subjects, in the succeeding articles; but the following came too late, and I give the information here, although a little out of place. ist. How to find the size of the roller for the Chinese duple.. This cannot be found by measuring between two adjacent repose teeth, that rule applying only to the English style of wheel with single teeth. But it can be found by taking a fraction of the diameter of the repose wheel, the same as for the other kind ? the distance between two repose iceth being equal to is the diameter of the wheel, etc., $(485)$. 2nd. How to cut the duplex e cape wheel. The minutize of this process properly belongs to an article on lathes, cutting engines, etc. But if the workman has a good cutting engine, provided with conveniences for cutting both vertically and horizontally, there is no special difficulty. The blank is first accurately turned out, with the repose-wheel portion of the right size and thickness, and with an angular ridge upon its surface, of the proper diameter and height for forming the impulse tecth therefrom, which are first shaped out with the horizontal cutters.
( 530 ) To cut the Chinese repose wheel, if it has six pairs of teeth with their points $10^{\circ}$ apart, set the index plate as if to cut a wheel with sever.ty-two teeth. Fit upon the arbor a cutcer of proper shape to cut the space between two teeth at one cut. Set the arbor so that the flat side of the cutter is in a straight line to the eentre of the wheel, and the arbor at right angles to such line, and horizontal. Then raise the cutter and advance the arbor, etc., by the forward or feeding screw, towards the centre, till the flat side of the cutter, when let down, is abreast of the point of one of the impulse teeth. The index point being in one of the plate holes, the escape wheel must be so fastened upon the spindle that the point of the impulse tooth fits snugly against the flat face of the cutter. If it does not, loosen and move it as it should be, but do not disturb the cutter, which, with its arbor, should have been firmiy fastened in the position above prescribed for it, with everything ready for working. By this means, we secure a connection between the position of the impulse tooth and the cutter, which latter can then be moved through the proper angle for cutting the repose teeth in their true position, relatively to the impulse teeth.

Varnish yor Brass Instruments.-An excellemt gold varmsh for brass objects, surgical or optical instruments, etc., is prepared as follows: Gum lac, in grains, pulverized, 30 parts; dagon's blond, i part, red sanders wood. 1 part. pouisied glass, to parts: strong alcohol, 600 parts. after sufficient maceration, vilter. The powdered glass simply serves for accelerating the dissolving, by interposing between the particles of gum lac and opal.

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## Optical Department.

Undor thi head wo solicit questions of Interest boaring on optics, particulariy the ere, the defects of vision, and their correction by glasses.
Allcommunctations must be addres ed to Dr. John S. Oiven, 142 West Iligh St. Detrots, Nich, and must be recoived not later than the isth of each nonth in order tosasure publication in the following issuo of Tur Trabrar.

Qut. 3. "I have a customer, a lady about 30 years of age who has never worn glasses although her sight has always been poor for the distance. She wants a pair of glasses to wear on the street. Her sight for reading and near work is first class. She is undoubtedly near-sighted (nyyopia). Her eyes have never caused her any trouble. I have fitted each eye separately with No. 10 minch concave spherical ( $-10^{\prime \prime}$ sph.), with these glasses each eye reads the 20 ff . letters 20 ft . away. She cannot read the 20 ft . letters with No. 11. Now this is what puzzles me, she chims that the glasses No. to make her dizay and sick, and that it is impossible to wear them. I $a^{-}$. satisfied that they are the rifht number, but I have failed to persuade her that they are right. What would you do in such a case ?"
We have no doubt but that the - 10 " sph . are the correct lenses. Cases of this kind may be suited by beginning with weaker numbers and increasing the strength every two or three weeks until the full correction lenses are reached. On account of never having worn glasses, it is difficult for her to become accustomed to the change, therefore we would suggest that you have her wear a pair of tay - 20 " sph., which she can probably do wthuut any unpleasant sensations for two or three weeks, until she is thoroughly accustomed to them. Then put on a pair of $-16^{\prime \prime} \mathrm{S}$. for several weeks, followed by $a-13^{\prime \prime} \mathrm{S}$., and finally by $-10^{\prime \prime} \mathrm{S}$, which by the time it is reached will probably not cause any inconvenience, particularly if she is not aware that they are the $-10^{\prime \prime} \mathrm{S}$. lenses. For this reason you should rot tell her what number she is wearing, nor when the final pair are reached. These glasses, -10 " S ., should be used for distant vision only. For reading or near work the lady should use a pair of $-24^{\prime \prime}, 22^{\prime \prime}$ or $20^{\prime \prime}$ S., according to which sems the most suitade for reading the finest print at about 12 inches from her ejes.

When fitting cases similar to the above, the weakest concave lens that gives the desired vision for any distance, is the correct lens. In this case $-11^{\prime \prime} \mathrm{S}$. did not restore normal vision, while $-10^{\prime \prime} \mathrm{S}$. did, that being the first or weakest lens met with that did so. She could probably see just as well with -9 " S. for a few moments while trying them, but she could not see any better than with - $10^{"} \mathrm{~S}^{\circ}$., therefore they should not be adopted.

Ques. 4. "I have read several works on refraction including Hartridge, but cannot say that I am satisfied with what I have read, nor with my knowledge of the subject. I understand the contents of each chapter in Hartridge, but after having read the bouk through: do not have any more confidence in myself than I had before I took it up. I do not know whether the faut lies in the book or myself. When I endeavor to formulate an intelligent rev:ew of the whole subject, I an: lost, and frequentIf throw down my book impatiently, but why I do so I cannot tell. What do you think is the trouble? Any suggestions you may offer will be appreciated."

We are of the opinion that you lack system in your reading and studies, and will endeavor to set you right.

In order to become a good optician you should be familar with everything pertaining to:
tst. The trial and spectacle lenses.
2nd. The normal eye.
3rd. The defects of vision, their detection and correction by glasses.

The trial and spectacle lenses are the instruments whth which the optician works. He should become thoroughly familiar with them. He should know their composition, quality, shape and refraction. He should also know how they are centered, numbered, nentralized, ele. Harridge treats upon this subject briefly in Chapter I., but if you will read the chapter carefully, noting every word, you will find that the subject is pretty well covered. Do not be satisfied with merely reading the chapter, but take the lenses therein described and work out the examples, repeating each illustration unth you are perfectly familar with them all.

After having mastered the lenses, turn your attention to the anatomy and physiology of the normal eye, paying particular attention to the accommodation and the acuteness of vision (see Chap. II. and III.). Then follow the normal eye in its course through the natural life of man. The near point of vision begins to recede at the age of io, the recession continuing until 80 years of age. About 40 it has receded to 8 inches from the eye. When it has reached this point presbyopaa (old sight) sets in (see Chap. IX.). Frequently during old age the normal (now presbyopic) eyes undergo another change. The crystaline lens instead of remaining perfectly transparent, turns white or smoky in appearance, thus becoming opaque (cataract) and preventing the light from passing into the eyes. When the opacity is complete it may be removed by the oculist. After the lens is removed by the oculist, or from any other cause, the $c$ r dition of the eye is known as aphakia (absence of the lens) (see page ${ }^{127}$ ).

The next step would be the consideration of the defects of vision due to the abncrmal condition of the eye. The most common abnormal defect is far-sightedness, (hypermetropia), which is due to the c:ye ball being too short or flattened from before backwards, adapting vision for distant objects. This defect is similar in many respects to preshyopia and aphakia, and like them requires convex lenses for its correction (see Chap. VI ).

The second abnormal defect, near-sightedness (myopia) receives attention in Chapter VII. This defect is due to the eyeball being too long from before backwards, rendering the vision more suitable for near objects, as reading, ctc.

Astigmatism, the third and last abnormal defect, in the majority of cases is due to the anterior, clear surface of the eye (the cornea) being more convex from side to side than from above downwards, or vice versa, similar to the shape of the bowl of a common teaspoon. This defect may be either hypermetropic or nyyopi:. Chapter VIll. gives a very clear description of the defect, its diagnosis and correction

Occasionally we meet with persons suffering from a weak. ness of the muscles of the ey: (asthenopia). If the weakness is manifested when adjusting the sight from distant to near objects, (see ques. 2, Augusi number The 'Trader) it is termed accommodative asthenopia. When the muscles which rotate the eye in the various directions are involved, it is termed muscular



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asthenop,a tree Clayp. II.). If muscular asthenopia continues toincreasc, the muscles in many :nstances become paralized and all control uver them is lost. At this stage the eye will turn in (convergent strabismus) or out (divergent strabismus) according to wheh muscle is involved (see Chap. X.).
Chapter XII. contains cases illustrating the various defects, their diagnosis and correction, and should be used as a reference for the student when reading the chapters on the defects.
Ifyou have an ophthalmoscope you will find Chapters IV. and V.full of instruction regarding the manipulation of this valuable litle instrument in the diagnosis and correction of visual .defects. Chapters IV. and i'. should then be taken up immedistely after Chapter III. If you are not the happy possessor of an ophthalmoscope it would be time wasted for you to try to gain any practical knowledge from these chapters, and their study should be deferred until you have access to one. The praises of the ophthalmoscope cannot be sung too loud. It is the most valuable instrument known for the detection and correction of defective vision, although it is not calculated to take the place of the indispensable case of trial lenses for the absotute correction of defective vision.

To review, the aspiring optician should have a complete case of tral lenses, graduated test letters for estimating distant and near vision, and the radiating lines for the detection of astigmatism. With these alone he may become proficient and be able to diagnose and correct any and all visual defects; but should he also have an ophthalmoscope he will find his practice much more pleasant, complete and satisfactory.

The student should study each subject in the following order: ist. The trial lenses.
and. The (a) Anatomy and (b) Physiology of the normal eye, (c) Presbyopia; (d) Aphakia.
grd. (a) Hypermetropia; (b) Myopia; (c) Astigmatism ; (d) Asthmopia ; (c) Strabismus.
th. The Ophthalmoscope and its manipulation.
$\ldots \ldots \ldots \ldots$

## Selecter Matter

NOTED SHOPLIFTERS.


OU want ine to tell you some yarns ot shoplifting? Certainly. Here o- my record book I have the name of an old lady who kept a snall shop or notion store in a town within a few miles of Boston. I caught her one day in a store standing near a jewelty counter, busily engaged in purloining small articles of that natu: .. I wondered where she was putting it all until I managed to go a little closer, when I saw that she had a pucture rolled up and into one end of which she was putling the jewelry. A fine hiding place she had for it, too, as the Wottom was closed, and when I sea. ched her 1 found eightyfour difierent articles of jewelry. I asked her what she intended to do wath it all, and she replied that she kept a iitule notion frore and intended to place the things in her stock.
"I had a doctor's wife and her sister from Lawrence on a
shoplifiting case once. They were cool hands, too. They came in early in the morning, went to a half dozen different stores. so that by nom they were pretty well loaded down. They collected all their goods. took them into a large store and had them checked, then went and ate their dinners, returning for the goods in the aftemoon. I was waiting for them and arrested thera. This case made guite a stir, as they were prominent people. It was carried to the Supreme Court, where they were convicted. It cost them over $\$ 100$ all told.

## SHE OWNE: HUUSE:S.

"I had a woman from Medford some time ago for 'lifting' bags. This is a little different kind of work from the ordinary shoplifting. A woman when examining goods naturally places her handbag on the counter or on the floor, and a 'lifter' ot this class makes a business of stealing these bags. I caught this woman at it one day and arrested her. She pressed hard to be released, but there had been one or two complaints a day right along about that time of hand-bags being stolen, so I held her. She was convicted, and since then an instance of a loss of this nature is rare. This woman was comparatively 'well off,' and owned several houses.
"They come from every:shere in the vicinity of Boston. I caught a Taumon woman a short time ago, and had another from salem who stole a sallor sut to present tc a little nephew of hers down east. I had a woman recently who had been in the country but a short time from England, and not long ago captured a man and woman who were a pair of expert New l'ork operators on here on a little tour. The woman did the work while the man acted as her shadow to see that no one was following her.

> HER CO.ICHMAN W.IS NO JOKE.
"I tell you that you would be surprised to see some of the people engaged in this business. A few weeks ago I arrested a woman in one of the big dry goods stores, and when I had lodged her in prison she asked me if I would not go back and notify hes coachman who was waiting for her at the door. I thought she was trying to fool me, but there was her coachman waiting for her when I went back. She was bailed out by her husband and detauted. That woman lives in a $\$ 75,000$ brown stone fromt on Beacon street, and the reason that she stooped to this kind of work was because her husband was too mean to allow her sufficient money. When she was arrested all the money she possessed was a solitary quarter of a dollar.
"Another case in this line is that of a Sunday school teacher from a neighboring town. She had read so much about shop. lifters that it turned her brain and she resolved to try it, so she came in, s"curec' a lot of stuff without detection, and emboldened by success came again and was caught. I caught a handsome your, jewess also, a well appearing young woman who bad graduated from the English High School and was married to a prosperous young merchant. She had tried it successfully, several times before I caught her, and then she confessed that she had become reckless with being undetected, and was glad that she had been caught, for if she bad not been, she declared that she did not know where she weuld have been brought up. She is now a reformed and happy womat, and lives at the South lind. There was a mother and daughtes who worked almost enarely on cloaks, and I remember a milliner who kept a shop and used to stow feathers, etc., in a space which she had specially prepared between the linning of her dress.' -Boston Record.

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# TESTING CHRONOMETERS AT THE U. S. NAVAL OBSERVATORY. 

By lieut. Hiero Tayior, U. S. Navy.
a-Gas pipe.
$b-$ Shelf.
$c$-Magnet.
$d-$ hever atached to armature.
e--Automatic valve.
(is charge of the governaent time sekvice)


HE U.S. Naval Obsernatory, at Washington, D. C., is the depot for chronometers used in the navy. Repaired chronometers are sent to the Observatory to be tested, and those instruments whose performance is satisfactory, are helu ready for issue to ships as they are needed, while those performing unsatisfactorily are returned to the makers for further repars. Competitive tests of new chronometers were inaugurated a few years ago, and are held when the Government desires to purchase chronometers. Onlythose of American manufacture are allowed to compete, the Government buying the best and paying from $\$ 225$ to $\$ 350$ a,nece for them, the amount paid for a chronometer bemg determined by its performance during the test.

It has been found that the variations of chronometer's roles
 are due mainly to changes of temperature. The condition of the almosphere with reference to humidity may influence the rates, but careful experiments have failed to develop any law for varia. tions in this case. There is no certainty as to how any particular chronometer will be affected from a change of humidity; of two chronometers one may gain and the other lose, but in any event the change of rate from this cause will be very small. With reference to temperature, however, it is different. It has been found from a careful consideration of the tempera-

THEKMOCTAT AND CONDFNSER.
ture rerords sent in by our ships from all parts of the world, that the average temperature of chronometers has been a fraction over ( $1,{ }^{\prime}$. Fah. In consequence, chronometer makers try to rompensate their chronometers so that they shall have their greates gaining rate at or near $60^{\circ}$ Fah. The temperature at which the chronometer has its greatest gaining rate is called the temperature of compensation. The makers also endeavor,

G.AS VAlvt: AND CONTROLLING M.IGNET,
with varying success, to adjust ther chronometer so that its rates will change but little as the temperature, rising or falling, changes from the temperature of compensation. The tests at the Observatory show how they have succeeded in their efforts to attain these two objects.

The first part of the test is made at fixed temperatures in the temperature room, which has been especially fitted up for that purpose. The roon is but litule exposed to the sun, and is


Gas valive: ( $2 / 3$ stre:.)
constructed after the manner of refrigerators, having treble floors, walls and ceilings, with intervening spaces. The outer space is filled with a material that is a non conductor of heat, and tie inner one is left as an air space. Above the room tsa large ice chamber so atranged that warm air rising from the room and passing through the chamber is cooled and returns to the lower part of the room. The rapidity of this circulation

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Yours truly,
Winnipeg, Man.
W. F. DOLL.
through the room and ice chamber is regulated by changing the sire i the opening hetween them. The room is heated by the circhlation of hot water through pipes on three of its sides, The water is heated outside the room by a gas stove, whose supply of ass is controlled by a thermostat in the room.

The thermostat is a glass tube--similar to a thermometer tube, but larger-with a very large bulb so that a small variawon in the temperature causes a comparatively large rise or fall of the mercury in the tube. The instrument is in the circuit of a smgle cell battery, the current flowing through the mer cury. The lower connection with the mercury is by a wire fused mot the bulb; and the upper through a second wire inserted into the upper end of the tube which, unlike the thermometer, is open. By entering or withdrawing the upper wrec the temperature of the room may be changed. In practice the end of the wire is placed at the mark on the tube which indicates the temperature desired. If the temperalure of the room rises above this paint themercury comes into contact wath the wireand the circuit is closed, closing in turn a second circuiteight cells-whose current flows through the coils of an electro-maz net and draws down its armature, which, being attached to the lever of the gas valve thus shuts off the How of gas to the stove until the temperature has fallen enough to allow the mercury in the thermostat toueparate from the wire. Then, of course, the two circuits are opened and the lever of the gas value being released is forced back by a spring; the gas once more flows to the stove where $1 t$ is ignited by a small jet which burns constantly. In this manner the temperature of the room rises and falls within very small imints above and below the tempera. ture to be mantanned. The range is from $0 .{ }^{\circ}$ 5 to $1 .{ }^{\circ} 5$ above and below. The mean temperature of the room is recorded by a chronometric thermoneter, i. e, a chronometer wih a plain steei balance, whose change of rate for a change of one degree of temperature has been catefully determined by experiment.

The hygrometric condition is regulated so that the humidity shall he near 70 per cent. throughout the trial. At the lower teniperatures it is necessary to place unslacked lime in the room to absorb the excess of moisture while at the higher tenperatures a deficiency of moisture is avoided by placing in the rowith pans of water and dampened cloths. Great care is used :" prevent any sudden entrance of outside air. The small window is quadruple and the door couble, so that in entering the out ir door may be opened and closed hefore the inner one is opened. Any sudden change in the hygrometric condition
is shown by a hair hygrometer; the mean condtion is obsamed from frequent readings of wet and dry bulb the:rmometers.

When chronometers are to be tested, the room is made ready for them, and they are placed on a table in the centre of the room in company with the thermometers and thermostat. They remain in their boxes, but the lids of the latter are removed. The temperature of the room is brought to $45^{\circ}$ Fah., and is kept at that degree for one week. Then the temperature is raised, degree by degree, until it reaches $55^{\circ}$; after one week at $55^{\circ}$ it is raised again, this tume to $70^{\circ \prime}$. After the period at $70^{\circ}$ the temperature is $85^{\circ}$ and then $90^{\circ}$, which is the highest temperature used After one week at $90^{\circ}$ the temperature is rate. curve tor temperature.

lowered successively to $85^{\circ}, 70^{\circ}, 55^{\circ}$ and $45^{\circ}$, being allowed io remain one week at each. The chronometers are compared daily with the standard mean time ciock, whose face can, be seen from the room. This test gives one rate for 90 and two for each of tie other temperatures. In the competition the means are used, thus reducing them to the $90^{\circ}$ period and eliminating the effect of time upon the rates.

After the second period at $45^{\circ}$ is ended the chronometers are removed to the chronometer room where they are subjected to the natural conditions of the atmosphere as to temperature and humidity. They are here compared daily for twelve weeks; a daily record of the mean temperature and humidty is also made. After this they are subjected to tests for polarity of


溇 -FOR SALT ORPEPPER-- Larger size for sugar. Both Sizes Made with INPERFORATEO CAPS FOR $\mathrm{BO}^{\circ} \mathrm{N}$-BoNB.


SOLU ALL OVERTHE EARTH,

E. G. GOODERHAM, J. C. COPP,
balance. and any chronometer which shows this quality is at once rejected. Tests for position are also made by inclining the chrunometer in different directions.

The formula used in determining the value of the chronometer is based upon the assumption that the change of rate from the rate at the temperature of compensation is proportional to the square of the change in temperature from that of compensation. Ample experience has shown that practically this assumption is true. Expressed in the form of an equation the formula is:

$$
r_{n}=r_{0}+Z\left(0-0_{n}\right)^{2}
$$

in wheh $r_{n}$ and $r_{0}$ tepresent the rates at the given temperature and the temperature of compensation represented respectively by $O_{n}$ and 0 . $Z$ represents the change of rate for a change of one degree from the temperature of compensation. When the trial hegus $\theta, r_{0}$ and $Z$ are, of course, unknown, but the tests show three rates (represented by $a, b$ and $c$ ) for three different temperatures represented by $d, e$ and $f$ ), which, substituted in the above equation, give three expressions from which $0, Z$, and $r_{0}$ may be computed, viz.:
$0=\frac{(b c)\left(d^{2}-c^{2}\right)-(a-b)\left(e^{2}-f^{2}\right)}{2[(a-b)(d-c)(b-c) e-a)]^{\prime}}$ $Z=\quad(0-\bar{d})^{a-b}-(0-c)^{2}$, $r_{c}=A--Z(0-d)^{2}$.

In practice $55^{\circ}, 70^{\circ}$ and $85^{\circ}$ wth their corresponding rates are the temperatures used in this part of the computation.

The results of the test in the temperature room are represented graphically in a curve from which the rate for any temperature may be casily taken. Using the first equaum, the rates for every five destes from $45^{\circ}$ to $90^{\circ}$ are computed and then plotted on a sheet of profile paper and a fair curve drawn through them. The mean daly rate for each week of the whole trial is also plotted on the sheet. These rates rarely fall upon the curve, and the amount they vary from it is measured in each case. These variations complete the data for the computation of the value of the chronometers, or, in other words, for the computation of their trial numbers. The formuiaforthe trial number is purely empirical, but it is believed that $t$ covers all the points that should be considered in determining the relative merits of chronometers.

It is:
Tral number $=p(69-0)+(10000)^{2}+100 I_{0}^{2}+1 m+$ $2 n^{2}$

The importance of having $69^{\circ}$ for the temperature of compeniation obviously changes with the value of $Z$., so that the
factor for deviation is made up of two parts $\langle 600$ ) and $p$. The latter is taken according to the value of $Z$ from the following table :


After which for each increase of 0.00050 in the limits of $\bar{Z}$, there is a corresponding increase of 0.125 in the value of $p$.


The next term (1000z) ${ }^{2}$, needs no explanation. In the third term $V_{0}$ is the mean of the variations of the rates in the temperature room from the curve giving those for $45^{\circ}$ and $90^{\circ}$, only one-third the weight the others have. In other words,

$$
\begin{aligned}
& V_{0}=V_{n}^{\prime}+3\left(V_{21}^{\prime}+V_{20}^{\prime}+V_{n n}^{\prime}\right)+V_{n o n}^{\prime}
\end{aligned}
$$

In the last term the factor $m$ is the difference between the greatest and the least variations during the twelve weeks the chronometers are in the chronometer room; if the points fall on opposite sides of the curve, $m$ becomes the arthmetical sum of the greatest minus and the greatest plus variations. The

## EXHIBITION.

## SPECIAL.

SPECIAL.

EVERY Jeweler visiting Toronto during the two weeks of Exhibition is heartily invited to have his correspondence addressed in our care, and also to use our office to prepare any correspondence they may wish to send. We shall be pleased to see a liberal use made of this invitation.

\section*{FULL} stoek. | R.W. ELLIS \& CO. |
| :---: |
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| DEPARTMENT. | BEST QUALITIES.

## 31 Wellington Street East. 40 Front Street East.


INDICATIONS ARE BRIGHT

For a heavy Fall Trade, and we are preparing to do our share in the best possible manner, and trust to be liberally patronized.
second factor, $n$, is the greatest difference of variations for two succeswne weeks while in the chronometer room.

The remarkable progress in the manufacture of chronometers cannot be more aptly illusirated than by a consideration of the curses of Nos 1657 and 1741 depicted in this article. The former is a chronometer of recent manufacture by a well-known New lork firm ; the latter is an old one made in England. No. 165 is isverynear perfection. It is slightly over compensated, and its temperature of compensation is rather low, but as its $Z$ is so exceedingly small, these defects are of little consequence. The fact that on no point on the curve does the rate exceed 0.15 sec . is worthy of notice. In the case of No. 1741 the remperature of compensation is $21^{\circ}$ below what it should be, and its $\%$ is large; so small changes in temperature cause large changes in its rate, which is large at most temperatures.

Manifestly these curves are of great value to the navigator, for they show him at a glance the effect of changes of temperature formerly it was the custom to determine the rate before leaving port, and to use the rate for the passage, no attention being piaid to changes of temperature. A further consideration of the curve of 1741 will point out forsibly the inexactness of such work. In mid-winter at New York with a temperature of $45^{\circ}$ the rate of 1741 would be +1.95 sec . If the chronometer were used on a ship making a twenty five day passage to Brazil, its alcrage temperature would be about $80^{\circ}$. Its rate (see curve) for this temperature is- 0.16 sec ., or a change of 2.11 sec . from the one determined at New York. The error in the ship's position would increase from day to day until it reached nearly 13 nautical miles at the end of the passage. Fortunately the effect of changes of temperature are now so well understood that the rate determined before leaving port is used only to determine how much the chronometer's rate has changed from the curve rate. I'his change becomes a constant, to be applied to the curve rates. For instance if at $45^{\circ}$ the rate of No. 1741 is found to be +2.10 sec ., instead of +1.95 sec . as shown by the curve, $+0 . i 5 \mathrm{sec}$. will be the constant, and the rate at $\mathrm{So}^{\circ}$ will be -0.01 sec., instead of -0.16 sec . The mission of the rurve does not end with its service at sea. During the crnise the navigator plots the rates he has determined from time to time upon it, and when the chronometer is returned it is sent with its curve tothe maker for repains. Thus the makers have before them a graphic history of the performance of the chronometer since theft their hands three or four years before. The information thus laid before them aids them in determining what is needed to improve the chronometer.

It i, srarcely necessary to speak of the care ari. patience requred to successfully carry out the tests above enumerated, nor of the great amount of labor involved in deriving from them the final results. In this connection it may not be out of place to say that the Observatory is under many obligations to Messrr. T. S. \& I. D. Negus, John Bliss \& Co. and Wm. Bond \& Son, for their hearty co-operation in this work.

In conclusion it may be said that the system developed at the (Hiervatory has proved so satisfactory to the Government that it is not likely to buy any chronometers without a competure trial, nor any but those of American manufacture, if for no other reason than that our leading makers are producing instrminents equal to and even better than the best produced abroas: - /cuelers' Circular.

## AN INTERESTING CLOCK.



N the window of a Cierman jeweler on Court street, Brooklyn, there stands a brass clock not more than ten inches high. 'The passer-by who looks through the window sees under the clock, which is supported by four folished columns, a small brass platform, balanced to a nicety on two pivots in the middle, like an ordinary see-saw. A groove cut into the surface of the brass runs zigzag from one end to the other, and on the path so made a polished steel ball, no larger than a bullet, runs unceasingly. When the ball has travelled from one end of the platform to the other, zagzagging from side to side, it strikes a thin steel wire which hangs from above, and in an instant the platform is tilted up at that end and the little ball, impelled by the force of gravity, starts back again. At the other end it comes in contact with another wire, and up goes the platform once more. Sometimes a big crowd stand around the window intent on the little sphere, the mystery of which they find it hard to solve.
F. T. Kraft, who runs the store, has followed his trade for many years. One day six years ago Kraft was going down Broadway when he saw a clock in a jeweler's window with the same device. He stood for an hour in front of the glass watching it and trying solve the problem of its construction. The proprietor of the store told him the clock had been made in England twenty five gears before, and was the only one of its kind in existence. Mr. Kraft's req̧uest to have a look at the mechanism was met whth a refusal, and be went off with the duermination to study it out for humselt. He worked at it six months during his odd hours and finally trumphed. Ithen he was surprised to find how simple the idea was after all, although he found the greatest delicacy necessary in carrying it out.
Mi. Kraft took the clock from its shelf in the window to explain its mechanism to the reporter. The two mysterious wires which the ball strikes against at the end of each trip are fastened above to a long rod. From the upper side of this rod runs a strip of steel, which rests against one of the four pins on an escapement wheel in the works. When the ball strikes the wire it releases this wheel, which makes a quarter of a revolution to the neat pin. On the same ans is a cog wheel whose teeth fit into another of half the circumference. The smaller wheel makes a half revolution while the other is making a quarter. To the axis of this wheel is fastened a rod, which is attached at its other end to the platform, which is pulled up or down according to the wire which the ball strikes.

It was in the manufacture of the ball itself that Mr. Kraft had the most difficulty. It had to be a perfect sphere to work properly, and it was turned down bit by bit to the proper size. A little guard rail is placed at each angle of the groove, so that the ball will not jump off. It takes the ball just five seconds to make the trip, a half second from each section of the groove. The platform acts upon a pendulum with a five second swing. The device is only interesting as a novelty, as it is more sus.


The American Watch Case Company of Toronto ask the attention of the Jewelers of Canada to their line of Hunting Gold-Filled Cases, now in the hands of the Jobbing Trade.

These Cases are made in 10k. and 14k. quality, and every one of them has SOLID GOLD BOW, CROWN, THUMB PIECES, JOINTS AND BEARINGS, and is guaranteed 'o be the best value Waich Case in the world for the money.

They are equal to Solid Gold Cases in workmanship and finish, and are fully guaranteed by the American Watch Case Co., no matter by whom sold.

All of these Cases bear one of the following Trade Marks, according to quality.

14k. Hunting, 18 Size $\mid$ "CASHIER ${ }^{\text {Arw Samum }}$
14k. Hunting, 6 Size )

These Cases are made of Filled Stock where Filled will wear equal to Gold, and of Solid Gold everywhere else. If you want to build up a reputation for selling firstclass goods at moderate prices, handle the Cases made and guaranteed by

## THE AMERICAN WATCH CASE CO.

ceptibie to changes in the weather than the pendulum clock, and has to be regulated frequentiy.

It is interesting to figure out the distance which the industrious little ball travels from day to day. Every second it runs ${ }_{4} 2-5$ inches, or 22 feet a minute. This is a quarter of a mile an hour, or six miles a day, or 180 miles a month or 2,160 miles a year-oover $11,000,000$ feet. Since the clock first started the ball has travelled a distance equal to nearly three-fifths of the way around the globe. In that time it has not been worn to any perceptible degree, although the brass sufface on which it runs has been ground off considerably.
"I have had lots of offers for this clock," said the old jeweler, as he put it back on its shelf, "but I wouldn't sell it for any price. It was a pleasure to work out the principle of the thing, but you couldn't get me to make another one of them for a good deal."-Nezu York Sun.

## ONE OF THOSE CLUB WATCHES.

(2)ID you see a man with a red morocco hand-satchel pass a few minutes ago?' asked an excited individual one day last week of a Chicago, Ill., policeman who stood near the Canal street Union Depot.
"A fellow with a light suit and brown hat, small, light mustache and light complexion; rather tall?" the officer in. quired.
"Yes, Yes; that's the scoundrel. Tell me quick which way he went?"
"Well, sir," answered the officer, "I saw him jump into a cab, and tell the driver to take him as fast as his horse could travel to State and Monroe streets."
"He's fooled me again," sighed the excited individual, as he mopped the perspiration from his forehead. "That feliow stuck me on one of those $\$ 38$ gold watches, and if I ever lay hands on him again I'll kill him. Just as sure as I am standing here I'll murder him. I keep a bakery on West Madison street, and one day last summer this watch agent came into my place and persuaded me to join a club with thirty eight people in it. Each man was to pay $\$ 1$ a week, and there was a watch to be draun every Monday night. He showed me one of the watches, and I must say that no one but an expert could tell it from a solid gold one.
" My wife told me there was some trick about it, but the agent was such an oily-tongued fellow that $I$ joined the club and paid the first installment. I paid in $\$ 38$ without drawing a watch, and then one was given to me according to contract. Here it is. Look at it! That's what I got for my $\$ 38$. The day it was delivered to me it looked nice and shiny but after I had carried it a week it began to turn black. It either gains or loses three hours a day, just as it takes a notion. My trade has 'rupped off over half, and I am fully convinced that it is due in the watch. If I want to know what time it is I've got to go into the barber shop next door, and my wife teases the life out of me.
"'The second day after I got the watch my horse died, and I am not feeling very well myself. If I buy a pint of milk in the morning it sours before noon, and I can't make lemon cream pie like I used to. The frosting, gous back on me, and

I know it's on account of that $\$ 38$ wath. I threw it away four or five times, but it is always picked up and returned to me. Once I threw it in the river. The next day a dredge scooped it out, and one of the men working on the dredge brought it up to my house that night. If this thing continues much longer I will certainly go craby. I have chased that agent all over Chicago and if I ever catch him he'll never sell any more $\$ 38$ watches."-Jewelers' Weekly.

## DEATH FORETOLD BY A CLOCK.

WE have not exactly a banshee in our family, who forctells by her wailing an approaching death," said a Boston lady to a writer gesterday, "but we have had mysterious warning of such given us time and time agam by an old clock, which has been in our family for the last 120 years. The works were ruined by a shot fired by a British soldier during the revolutionary war at my great grandfather, which shot, passing entirely through his body, killed him instantly, and then broke the glass door, penetrating the works and stopping them forever, for, though innumerable attempts have been made to repair them, it seemed that some unknown power kept the clock silent except when death flapped his black wings over the household; so it was banished to the garret.
"The first instance of its warning was when my grandfather died. He had been very ill, but the physicians had at last pronounced him out of danger and his family were just congratulating themselves on this news when the loud tones of a clock striking twelve, slowly and solemnly, like the tolling of a bell was heard. 'Why, what is that?' said $m y$ grandmother. There was but one other clock in the house, which was in full view, so it was evident that it was not that one. 'It is my father's clock,' said her husband, 'it has struck the close of my day', and before they could reach hum he was dead, just as the last stroke died away.
"This occurrence was repeated when my grandmother herself lay dying. The old clock struck twelve just as she drew her last breath, and my father, at last belteving that there was something supernatural in the affarr, had the old works removed, leaving only the hollow case; but a few years after, when my brother was brought home dangerously wounded after the battle of Chancellorstille, the lung, slow, sulemn tones of the old clock was heard as before, and poor leon's life went out as they died on the air. They struck for my father and for my little child, who died last year. The clock warned me, too, when my sister died in Japan. I had just got a letter from her, in which she had spoken of feeling very well, when I heard the old clock, which was in a remote storeroom, strike so rapidly that the notes almost mingled, and then began slowly to strike another twelve strokes. 'My sister is dead,' I said to my husband, ' and has died very suddenly, but who the other strokes are for I cannot imagine.' My husband tried to reason and then to ridicule the idea, but I mourned for my sister as earnestly as tho' $\mathrm{g}^{2}$ I had seen her die, and when, as I knew I should, I heard the news of her sudden death, I found it had taken place on the same day and at the same hour as that on which the clock struck, allowing for the difference of time between Japan and Boston. Her haby, a few hours old, died a few minutes after the mother."-Jeacelers' Reveru.

For the coming Fall Trade we have made extra exertions to secure some

## NEW AND TASTY GOODS

 and for that purpose ENGLAND, FRANCE, GERMANY and the UNITED STATES have been visited, and we have been successful.
## GUR FALL STTOCK HAS ARRIVED

 and when our Travellers call on you they will show you grand value for your money, and goods that will sell at sight. Do not buy until you see what we have to offer.
## IN AMERICAN and SWISS WATCHES

 @ $\quad$ 〇ーA complete line of Association Movements, Filled and Silver Cases as low as the lowest. Gold Cases all sizes and designs.

## WE HAVE SPECIALTIES---TRY THEM.

"Albo" Silver Goods, Registered, (we are sole agents for Canada) "white as silver and guaranteed to wear white throughout."
"I B. Silveride," O.F., Key Case. The best Case in the world. 5,000 just received.
"L. Bros." \& "L. B. H." Standard Rclled Plate Chains.
A1 Spectacles, Registered. The cheapest and best spectacle in the market.

The choicest stock of French Marble and Mexican Onyx Clocks ever imported into Canada, and our usual complete line of American Clocks.




E observed thiee men hanging to a tall tree by their heels. C'pon inquiring the cause of their punishment I found that they had all, when alive, deceived their friends by describingthings they had neverseen and by relating events that had never happened. This gave me no concern, as $I$ have ever confined miself to facts."-lBaron Munchausen.

As the redoubt. able Baron Miunchausen found it necessary to carry his readers into space to tell them of the marvels of the carth, so the "Truthful Jameses" of the daily press lead us out of the trade to dec.ribe the miracles of clockinaking. One of them writes:
"Mr. Darius L. Goff, of Pawtucket, R. I., has a remarkable clock. It is an old-style tal! clock, and occupics a position in the front hall of Mr. Goffs residence, where it regulates the entire houschold. The clock never requires winding, the front door of the house, as it is opened and shut during the day; performung that sork. Within the dial is an ingenous mechanism by which the light in the front hall is turned up as darkriss approaches, and again is lowered as the ortholox bed tume d:aws nigh. As morning dawns, and it is time the servants bestined themselves, the faithful clock rings a bell in the back ha!!, summoning them to their daily labors. An hour later a bell in the front hail warns the family that it is time to rise, and a half hour later still another peal of the bell summons them to hreaki:- Besides these arrangements the clock is connected wth another in Mr. Goff's sleeping room, whereby the two are struck cimultaneously. There is in theoffice also a thermometer, so arranged that a bell is rung when the temperature of the roum sabove or below a certain point."

Another unfolds a stiil more marvellous tale. It is a clock belonging to a native , rince of Upper India and jealously guarded as the rarest treasure of his luxurious palace "In front of the clock's disi was a gong, swung upon poles, and near 11 was a pile of artificial human limbs. The pile was made up of the full number of parts of twelve perfect bodies, but all hay heaped logether in seeming confusion. Whenever the hands of the clock indicated the hour of one, out from the pile crawied just the number of parts needed to form the frame of one man, part joining itself to part with quick metallic click; and, when completed, the figure sprang up, seized a mallet, and, walking up to the gons etruck one blow that sent the sound
pealing througin every 100 m and corrdor of that stately palace. This done he returned to the pile and fell to pieces again. When two oclock came, two men arose and did likewise; and so through all the hours, the number of figures being the same as the number of the hour, till at noon and midnight the enture heap sprang up, and marching to the gong, struck one after another each his blow, and then fell to pieces."--./cueciers' Weekj:

## MARKED CHANGES IN WATCHES, IN STYLES AND PRICES.

BO YOU see this old watch?" said a watchmaker the other day. He held up an article that looked more like a mantle clock, and proceeded to open it up. By some twist of the thumb that only a watchmaker knows, he opened the outer case and it looked much like the shell of a cocoanut. The interior portion resembled the kernel. The thumbnail got to work again and the glass face was raised. Again the thmmbnail acted, and the works were turned out on a hinge, and ther looked big and course enough to run a rolling mill.
"That watch deesn't look as though it was worth much " continued the watchmaker, "and yet its owner, who was in he:e a few moments ago, said he must have it fixed at any price. I found a couple of pivots broken, several teeth bent and other damages. I told him it would cost $\$ 4$. 'Fix it up' he said, - I don't care if it costs $\$ 10$ to fix it. That watch belongs to my father. He has had it for many years, long before I was born. I don't think it could keep time enough for a pawnbroker, yet he wants it fived and it must be done."
"Now," continued the watchmaker, "that is a very old style of watch. He could buy a far better one for the price he would have to pay for repairing it, and one that would be much more suitaible, too. It is a burden to earry such a watch. But men liked them when they plowed, hammered around among trees, fell into rivers, etc. This old watch survives such mishaps, though it docan't keep decent time. It can't. Its machinery is ton rough and old to keep good time.
"I'es, there has been a great change in the style of watches. dears ago big watches with all the flowering that could be got on the cases were the atjle Then came the opposite, and plain watches were the demand. 'The lady's watch came, a neat, delicate little thing, and then the men thought the little watches were the $n e$ plus altra. And the jeweler began to bedeck the cases with pea:ls and other stones, and the articles brought big prices. After a tume the neat silver watch began io get its houks in, and it was all the rage.
" Prices for watches have fallen remarkably in the past ten years. I remember when the people patd $\$: 50$ and $\$ 300$ for a hunting case gold watch that you maj now get for $\$ 50$ or $\$ 60$, and sometimes for less. The change in prace is due to the fact that the makers, after a time, found that they could make cases much cheaper than they had been doing. The works were made much cheaper by the use of machinery, and, of course, the price feli, being helper, along by competitior." -
Jeavelers' Circular.

# THE AMERICAN WATCH CASE CO. 

## 

## CAUTION.

As some misapprehension seems to exist amongst the retail trade regarding the Watch Case Factories of Toronto, and their products, we deem it but fair to ourselves and the jobbers who handle our cases, that they should be placed in the hands of the trade distinctly upon their own merits as the product of the American Watch Case Company, which has always been sold exclusively to the legitimate jewelry trade.

Every retailer is aware that there is now more than one company manufacturing watch cases in Toronto.

As the product of these factories is commonly spoken of as "Tormto Cases," it will be readily seen that a false impression may unknowingly be conceyed by a salesman selling these goods, and it is to correct this that we make the following announcement:

Eveny Gold Filled Case made by our Company bears our registered trade mark of "A H'anged Whecl," and every Gold or Silver Case made by us bears our registered trade mark of "A Mallese Cross."

An experience of five years has satisfied the jewelry trade of Canada that every case bearing one of our trade marks, is just what it is represented to be and nothing else. The Company therefore respectfully ask the trade when they are buying watch cases to examine the stamps thoroughly, and see that they bear one of nur trade marks as shown herewith, as they absolutely , efuse to suarantec any case whach is not so stamped.

> THE AMERICAN WATCH CASE CO., 67 Adclaide Strect West, TORONTO.

When you purchase a Gold Filled Case examine it carefully and see that it bears cur Trade Mark of a " Winged Wheel." We guarantee no others.


When you purchase an 18 K . Gold Case examine it thoroughly and see that it bears this Trade Mark. We guarantee no other.

Every 14 K Gold Case made by the A. W. C. Co., bears this well-known Trade Mark. Look for it. We guarantee no other.


Our "Lion" Gold Cases are univerially admitted to be the best cheap Gold Case ever made. None are genuine without this Trade Mark. Look for it.

With the exception of our N. P. every Silver Case we manufacture bears this Trade Mark. No others equal them in qualty: If they: bear this impress you will be safe in buying them.

Out "Premile" 14 K . Gold Filled Screk Dust Proof Case is the cheapest and best in the world. You are perfectly safe in guarantecing them to your customers and there is money in them for you.

## ROMANCE OF A DIAMOND.



VERY curious case has been exercising the authorities at the Cape, say's the Pall Mall Gazetle. In accordance with the law, which regards as stolen every diamond which a man sells or has in his possession unless its origin and pedigree are registered at the detective deparment, a man brought up for registration the other day a large diamond, worth some thousands of pounds, whith ?....., he alleged, been given to hm long ago by his sweet heart His story was that a certain lady, still living, and now the wife of another man, had found the stone and sent it to him fifteen or twenty years ago, inclosed along with a feather in a letter, begsing him to accept it as a keepsake. The faithful lover had hept it all this time, he said, but now being hard up wished to sell it. He demanded, accordingly that the detective department should supply him with a permit. The detectives communuated with the lads. She, however, being a married woman, seemed in no way anxious to have a foolish romance of her callow youth revived, and professed to have no memory of any such transaction. Thercupon the mother of the claimant rummaged about and discovered the original autograph letter, feather and all. There it lies at the detective office-a taded relic of a sentiment long ago. It is a composition pervaded by as little wisdom as is usual in such things; but accident has attached to it a value more substantial than any, pethaps, which the recipient put upon it "when we two parted in silence and tears." The latest news says the authorities beleve the story, that the genuineness of the whole affair is in a fair кay to be established, and that the happy owner will soon be enriched by the procecds of a diamond which has so strange 2 history.

## CULLED FROM OUR U. S. EXCHANGES.

Seals have good appetites. It is calculated that $4,000,000$ pounds of fish a day are required to feed the fair seal that the United States want to protect.

An invention by which writing can be transferred from paper to iron is the work of a Boston man, who has invented a hard ink with which he writes (backwards) upon ordinary paper. The paper is placed in a mould, meled iron is poured in, and when the hardened iron is removed it is found that while the heal burned away the paper, it did not affect the ink, but left the impression of the writing moulded into the iron. This discovery was made by noticing one day that the printing on an ordinary handbill that hy accident had fallen into the mould was fainlly transferred in this way.

A public sale of the factory of the Aurora Watch Company by the Master in Chancery has been advertised." The people of Aurora have not yet despaired, but hope that the purchaser till cont:nue the business in that city.

Several seizures of jewelry were made last month by the

New lork custom house authorities, the most notable being jewelry which is said to have been intended for Miss Fay Templeton, the actiess. This property, which is valued at $\$ 8,000$, was found in the possession of Henry Hershy, a passenger on La Aiormandie, who, when taken before linited States Commissioner Shields, stated that he is the valet of Howell Osborn and had been sent to this country to deliver the jewelry to the actress. The valet was committed to jail in default of $\$ 5,000$ bail.
L.ast week Judge Blodgett, of Chicago, rendered a decision in the suits of the Elgin National Watch Company and the American Wahtham Walch Company aganst the Aurura Wateh Company for inftingement of patents in favor of the plaintiffs. The Court granted an injunction restraining the defendants from again infringing upon the patents in cuntroversy. It is stated that suits will at once be instituted against other watch companies which are violating the rights of the Figin and Wal. tham Companies.

The Waterloury Watch Co. have prepared an immense quantity of neat memorandum books, which they intend to send free of cost, in packages of 100 each to any retall watch dealer who sends a request. A blank space is left upon the last cover page of the books for the address of the dealer distribut ing them. This is an admirable advertising concent, and every dealer should take advantage of the offer.

On the afternoon of Wednesday, August igth, Rojal E. Kobbins, Treasurer of the American Waltham Watch Company, ran an excursion from Waltham to Nantasket Beach for the entertainment of such of the G. A. R. excursionists to Boston as are connected with the Elgin National Watch Company. When Treasurer Robbins heard of the presence of a large number of Flgin people he expressed a desire to provider an entertainment at his own expense and arranged this excursion and a banquet at the Arlangton Hotel, at Nantasket. Mr. Robbins also generously prowded altractive badges and neat menu cards. The Elgin excursionists numbered 112 persons.

According to Assignce Evans, all the ex-hands of the Aurora watch factory, with the exception of a half dozen or so, have been paid off. He says that the banks have disposed of all the watch movements they held as security, though they still have a claim of about $\$ 15,000$ against the company.

Penniman \& Duke, jewelers of San Francisco, Cal., have made a five years' contract to take the entire product of the Otay watch factory and report large sales of the "Golden Gate" and "Native Sons" movements.

The National grmnastum just completed at Elgin, Ill., for the especial benefit of the watch factory people, is a model of completeness. Professor Everelt, an athlete of experience, has charge of the establishment. The fees are $\$ 10$ per annum for men, ard $\$ S$ for women. Duriug evenings the gymnasium is for the exclusive use of watchmakers, but all who are interested in physical culture in Elgin may use the rooms during the day by paying the annual fees. One hundred and fifty names are now on the membership roll.

The annual meeting of the stockholders of the Seth Thomas Clock Company was held on July 10 , at Thomaston, Conn., and the officers for the ensuing ycar were elected as follows: Aaron Thomas, President; William T. Woodruff, Vice-Presi-

## Quality Is The Standard Of Value.

We Compete For Quality, Not Quantity.



No. $1 \times 2$ WIRE GIIUCK
Al our Chucks ate stamped "Moseloy" on the face and warranted.
Cut af Chucica 工nis es:o.
Note. The farger capacity of our Waro Chucks many tures makes up for tho difforenco in price. should thero be nay.
ALBERT KLEISER, NO. 14 KING STREET EAST,

This is the finest Spring ever offered to the Trade in Canada Sens for sample doz. and be convinced.
l'er Doz
Martin's Springs for Waltham and Elgin Watches, 18 Size. - \$1 25 for Swiss Watches, all sizes, . . . . . . $1 \infty$

For Sale only by A KLEISER, Wholesale Dealer in Watch Materials of all kinds.
Sole Agent for the Dominion for the Moseley Lathe, -

-     - Wholesale Dealer in Watch Materials of all Kinds,
- TORONTO, ONT.



## WHOLESALE JEWELER,



For a SELECTION PACKAGE OF NEw GOODS.
dent; L. ¿ Parson, Secretary ; Seth E. Thomas, Treasurer ; A. J. Hum', Assistant 'Treasurer.

The l.uncaster Watch Company is now under the surveillance of the court, and is bonded for $\$ 306,000$. The labilities are about $\$ 00,000$. 1). Ramsay Patterson, of Philadelphia, has appututed bis atorney, H. B. Swarr, assignee of the Keystone, while numbers of the stockholders ask fur the appointment of a receiver to supplant the assignee. The employes who filed liens for wages due last spring have received the full anount, $\$ 3,093$. Things with the stockholders are still at stress.

## - FROM ENGLISH EXCHANGES.

Thert from Messks. Benson.-Albert Arthur Cheshire, 17,0f 70 Royal Road, Kennington Park, was charged last month with stealing eight gold and silver watches, the property of Messrs. Benson, jewelers and watch manufacturers, Ludgate Hill. The prisoner was junior clerk in the employ of the prosecutors, and nine watches were missed by Mr. Poulter. Thes 'ciunged to customers. Afterwards the prisoner voluntarAly went to Mr. Poulter and asked that he might have an interver with the chief manager. He then admitted to that genteman that he had stolen the watches, and he gave up the pledge tickets. The alderman remanded the prisoner for inquiries.

Tat maters in dispute between Messts. Hutton \& Sons and their workmen of the hollow ware department still remain unadjusted. The men, backed by the Stampers' Union, stll maintain an attitude of hostility to the new price list. It is a remarhable fact that, althoush this union has been in existence for about forty years, this is the first affair partaking of its character either of a strike or a luck out in which they have been involved.

A New "Trust".-An Onyx Trust has been formed, with a capital of $1,500,000$ dols., to control the production of all the quarries and mines in Mexico. The new company is to replace native labor, and develope the industry according to mordern ideas, to which end it will run its own vessels between Vera Cruz, New York, Liverpool, Havre, and Hamburg. It will obviously take a large onyx crop to supply these ships with freight, and it is perhaps noteworthy in this connection, thinks the Finnancial Vears, that the gentleman who describes himself as the "Onyx Chief" dates from " Buncombe "County, North Carolina.

The: Meliourne: "Usion."-An endeavor is being made to resuscitate the Jewelers' and Watchmakers' Union, which died out about three years ago, owing to various causes. The old rules are being adopted, and the chief thing provided for by these is the eight hours system. Although this system has for a long time past been observed in the principal shops in the trade, the work of the society will be to enforce it in those shops which at present do nut practise this system. Another work of the society will be to take a stand with regard to the amount of "improver" labor which, it is alleged, cxists in the trade to a considerable extent.

Tur trowel ued by the Prince of Wales in haying the foundation stone of the new Royal College of Music at Kensington
last month, and which is made from the metal of the corrugated boiler flues of the troopship Pratorin, was mounted in gold by Messrs. James Dixon © Sons, of Sheffield and I.ondon.

The largest puffect damond in the world is the imperal, now in Paris. It is owned by a syndicate, which has offered "t for sale at $£: 200,000$. It is cut, and weighs 180 carats, the greatest known weight of any cut stone in the world. It is ea. ceptionable in color and brilliancy.

A Magnificent Dhmond.-The Nizam of Hyderabad recently bought in Madras a magnificent diamond for 165,00 , rupees, which is known as the (iordon-Orr diamond. The stone weighed before cutting $67 / \frac{1}{2}$ carats, and after cutting $2.41 / 4$ carats. It is described as being the best, purest, and most brillant stone known to connoisseurs, and will be worn by lis Highness in his puggaree, or crown.

London, Exglanid, Juny 21.-Francis Powell, a shareholder in the Burmah Ruby Mines Company, has attacked the board of directors of that corporation in a caustic consmumication to the I.ondon Financial Neaus and a subsequent circular issued over his signature. Mr. Powell charges that the directurs are unfamular with the business, that they have syuandsred the money of the company, and that they have otherwise failed to perform in an intelligent manner their duties. The leters have created a sensation in the trade, and it is likely that their influence will be felt in the election of directors soon to be held.

The only news that comes from Amsterdam is that cleavages are in demand. None but little stones are selling, and the market remans practically the same as it was at the time our last report was written.

The Pans market is very quiet, hardly any but furegners are buying, and there is no local speculation whatever.

Cunsiderable bushess was transacted in London during the month, large parcels coming from the Cape at the reduced p -ices now ruling-some $\mathrm{i}_{\mathrm{j}}$ per cent. lower than has been the order of the day for some months previously. Should the present guotatons continue, there is no doubt that a large increase of busmess will be chromicled in the near future and that many of those merchants who have been driven out of the market temporarily will be tempted to ret irn to the alluring art of getting the better of one's fellows in business.

Cokal.-Corals are appearing in great variety in the Paris and I.ondon markets, and will, it is thought, be worn this season very generally; and those who have put them away in an odd co:ner of their jewel case will bring them again into the light of day.

Daring Burclaky.-The shop of Mr. I.itchfield, Hanway Sireet, was burglarized last month and property to the estimated value of foro stolen, including jewelry, ivory and enamel goods. and antiques. The shop is locked up at nights and a complicated arrangement of burglar alarms fitted to the doors and windows, but this did not deter the thieves, who must have planned the robbery for some time, and it would seem, also have known their ground.

To Part Leead frovi Gotin. - A correspondent desires to know how In rirt lead from gold. As lead melts at $617^{\circ} \mathrm{F}$. and gold at $2000^{\circ} \mathrm{F}$. melting the leat ard recovering the gold would be about the noit convenient and quickest methed.


BEG to notify the readers of The Trader that The Canadian Horological Institute is here to stay: My ambition is to make this School second to none, and to win for it a reputation by mert only, through thorough attention and hard work.
Being from its commencement the instructor therein, and also the designer of the movement which the pupils are taught to construct, those desirous of instruction can rest assured that they will receive every attention, as it is my desire and ubject to turn out first-class watchmakers in every respect. A new prospectus is now in print and will be cheerfully sent to any address.

# HENRY R. PLAYTNER. 

## ENDORSEMENTS.

Toronto, Aug. 19th, i89o
THIS CERTIFIES -That Mr. Henry Playtner has been in my employ for nearly three years. and l can truly say that he is a firitcids, acationaker, quite cumpetent to repaur and replac: any pait in any high grade watch, including chronometer, minite repeaters, spitit seconds, etc He is also industrous and honest, and is greatly devoted to his chosen calling, une ot his trats $i$. his abitity, painstaking and eajerness to ampart to others the knowledge which has taken him years of hard wori ano fersistent study to acquite. I can confidently recommend him to all who wish to improve in the art of watchmaking. I may also say that he makes no idic or rash promises, my experience of him has been that he fulfilled to the letter whatever he agred to dio.
J. P. MILL, 445 Yonge St.

Toronto, Aug. 19th, 1890.
THIS CERTIFIES-That we fully endorse The Canadian Horological Institute, and recommend the same to the farorabl: consideration of the trade.

EDMUND SCHEUER.
ALBERT KLEISER.
P. W. ellis \& CO.
W. K. McNAUGHT

# Ebitorial Notes 

## nemoens moryous.

Jowelers throughout Canada will oblige the Editor by sending into this offee for mention in theoe noted any lleme of news pertaining to the Jewelry busisess that ifiey think would be of iaterest to the Trade generally.
: R. Wright, the Cheoley jeweler, has placed his books in the hands of M. A. Holliday, for his creditors' beneft.
A. J. Griggs, jeweler of Ridgetown, Ont., last month assigned to Levy Bros., Hamilton.
J. M. Morrow, the New York agent of the Columbus Watch Co , was in the city last monih on the business of the Company.
H. Hughes, a jeweler in the employ of E. H. Allport \& Co. of this cily, had his hand severely crushed last month while working a power press.

Assigned.-J. W. Power, who purchased the jewelry business of Dividson Bros., of Calgary, last year, has assigned for the benefit of his creditors.

Assigned.-Robert J. Davey, retail jeweler of Port Hope, has executed an ascignment to Mr. R. E. Gunther of Toronto, for the benefit of his creditors.

Charlie Addison, Ottawa's young but veteran jeweler, reports a brisk trade for the season so far, and looks forward to a prosperous year ahead.

How Chronometsrs are Rated.-We direct the attention of our readers to the very interesting and instructive article in this issue, showing how chronometers are rated for the navy of the United States.
R. Russell, the lightning traveiler of Levy Bros., Hamilton, bas juit returned from a flying trip to the North. West and British Columbia. He reports trade very good and great prospects ahead.

Look Out for Thim.-There seems to bea good deal of counterfeit Canadian silver abroad at present, principally 25 and 50 cent pieces. Dealers had better keep their weather eye open for them.

The St. Johns Fair.-The people of St. Johns, N. B., propose holding a grand International Exbibition in their city from September $2_{4}$ th to October $4^{\text {th }}$. We trust they will make a big success of it.

An Enterprising Jewileri-R. A. Trapnell, retail jeweler of Windsor. N. S., has recently moved into a new and handsome store and the local papers give him a vigorous puff for his enterprise.

Mr Sydey Ler, of the firm of T. H. Lee \& Son, who has been laid up for the past six weeks with 2 bad attack of typhoid fever, is convalescent and expects soon to be around again as usual amongst his customers.

A Cridit to the Firm.-The contract for the Hamilton Band Tournament medals, was awarded to Thomas Lees \& Son, of that city, who deserve great credit for the elegant trophies they furnished the winners.

Served Him Right. - A man named Richard Delahunt recently stole $\$ 200$ worth of jeweiry from J. Chesley, at River Herbert, N. S., and was sentenced to two years in the penitentiary for his smartness. Served him right.
H. G. Lavetus, the portly bu genial western representative of the Montreal Optical Company, bas just returned from a business trip to Europe. He says he will be on the road very soon with 2 splendid line of new goods that the trade will want to see.
W. F. Snell, of Strathroy, dropped in on The Tradmr on his way home from a most enjoyable trip up to Macinac. He was accompained by his brother Andy from California, who is visiting his old home for the first time after an absence of six years.

The Illinois Watch Co. is working up a very large foreign trade in England and Australia. Last month they opened up a new vein by sending a shipment of over $\$ 5,000$ to Central America. Their Canadian trade is also said to be increasing very fast.
C. M. A. Grant, Manager and Secretary of the Mcntreal Watch Case Company, has been putting in his holidays at Murray Bay. His

Company are busy getting up a new line of cases to be known as the "Progress," which Mr. Grant thinks will capture the market.
P. W. Ellis \& Co. have opened an office in Winnipeg for the convenience of their western trade. It will be under the management of their o!d and reliable traveller, Mr. A. W. Dixon, who will make the metropolis of the north-west his headquarters in future.

Disgoxged.-The young man named Anderson whose almost succesoful attempt to swindie Wm. Moss, jeweler of Springhill, N. S., was fully detailed in our last month's issue, has, out of respect for his family, been allowed to go after disgorging the money he had obtained.

Call and Ser Them.-The Goldsmiths' Company invite the jewelers who may visit the Exhibition to make their office their headquarters while they stay in the city. They have every facility for the dispatch of business, and the trade are invited to make themselves perfectly at home.

An Adventurrr by the name of Baron Von Katscher, of Vieana, has succeeded in fleecing a number of Montrealers, among whom is French Consul Schwab, the well-known watch importer, who cashed a bogus $\$ 300$ check. He is said to be a real baron, but a black sheep of his family.

Read the Advertisement of Edmund Scheuer in this issue regarding the merits of his "Pioneer" roll-plate chains, but instead of cutting out the piece and pasting it in your hat, let it stick to your memory long enough to get you to call and examine them when in the city during Exhibition.

Back Again.-Mr. Pitt, the former representative of P. W. Ellis d Co., in she Province of Quebec, has found himself unable to keep out of the jewelry business, and will again represent the old firm over his favorite territory down east. His many friends in the trade will be glad to see him on the road again.

A Good Gursser.-The St. Thomas Journal says that a jeweler in that city some time ago offered a gold watch to the person guessing nearest to the number of beans in a glass dish in his window. The lucky man was a Mr. J. P. Smith, of Toronto, who guessed within nine of the correct number, which was 3,389 . A good guesser, certainly.

Jewrlers' Directory. -We have to thank Mr. C. F. Dedison for a copy of his "Standard" Directory of the Manufacturing Jewelers of the Uuited States and Canada. The' "Standard" is the pioneer directory of its kind in the United States, and gives a great deal of valuable information about the trade in a very concise and accessible form.

A Rich Mine.-A dispatch from Port Arthur on the 5th of last month says thai "The Badger Company of this place shipped to day to Newark, N. J., a car of silver ore, containing 33.559 pounds and valued at $\$ 45,000$. This is the richest car ever shipped from Port Arthur and is the product of the Badger's new vein for less than one month's work."

Mr. William Lewis, a manufacturing jeweler of this city, nearly lost his wife last month by a singular accident. Mrs, Lewis was eating her dinner, when a piece of meat lodged in her throat which she was unable to extricate. A doctor was at once summoned, who fortunately managed to get it out, but the shock to ber system has left her in a very critical condition.

Dissolved.-The firm of Beeton \& Playtner of this city, was last month dissolved by mutual consent, Mr. Beeton retaining the original watch repairing business on Leader Lane, and Mr. Playtner tiking over the recently started Horological Institute. Mr. Beeton's old friends in the trade will now be able to find him at the old stand every lawful working day in the year.

A Good Showing.-The export trade of Canada reached \$94,389,945 last year, an increase of $\$ 8,375,365$ over the previous year. This is the best showing since 1883. and will be bad reading for those political Jeremiahs who are constantly lamenting that the country is going to the "demnation bow-wows" as fast as a dishonest and incompetent government can help it along.

Ladies' Filled Case.-The ladies' gold filled case manufactured by the American Watch Case Co., is now fairly in the bands of the trade; and both as regards fipish and quality is all that could be wished

# For Time, Appearance and General Satisfaction, 



 WATERBURY WATCH

## Is UNEQUALLED by any other low-priced Watch IN THE WORLD.

THERE is a larger percentage of profit in the sale of WATERBURY WATCHES than ANY Watch in the market. Think of this, and then ask yourself why you handle cheap Swiss watches, when every one you sell will prove a boomerang. Give your customer good value for his money and you make a friend of him or her, do otherwise and you lose a customer. Send for our Catalogue showing different Dials and Fancy Cases.

NO ENTERPRISING JEWELER SHOULD BE WITHOUT OUR GOODS IN STOCK.

## THE WATERBURY WATCH CO.,

 81 KING STREET EAST, • • TORONTO, ONT.
 holdiug ono groes oach, atsored in olphe usoful sizes.
ror
Onler a box ut ench tu niart with. and aftorwards order by bumbur any qunntity you may want fou will nidd thisavery kood system. Sont by mall on rucolnt of price.


FRIFNDSHIP HINGS-Nico Pattorne, Well Fiuinhed. Sell quick Shver.
 Hangles or luitiaig, ei por lozan. Sent by mall on recelpt of price.
On account of riso in valuo of Sllver, we havo teca obliged to raiso the price on liagile liracclots

Akworted l'attorna somt by matl on recerpt of prico.
G. EI. LEFS \& OO.

Manufacturing Jewelers, Watchmakers if Engravers, Hamilton, Ont.

## T. WHITE \& SON,

MANUFACTURING JEWELERS, LAPIDARIES \& DIAMOND SETTERS

RICHMOMD CHAMBERS, RICHMOMD ST. WEST, TOROMTO.
Canadian and Foreign Stones, Rubies, Sapphires, etc, Polished and Mounted for the Trade.
N.B.-A variety of Stones and Imitations of all kinds in Stock.

## C. W. COLEMAN,

10 Eara 82. WEst, (up 8taire, - - TORONTO.
IXTCHEIAKER TO THE TKADE.
Importer and Dealer in GRANDFATHER CLOCKS,
QUARTER TING-TANG AND CHIHES.
ESTIMAIES FURNISHED FOR TOWER CLOCKS.
W.COATES \& Bro, joberas in

JEWELRY AND WATCHES,
lor, while the price is low enough to co a mend them to every jeweler that his a trade for such goods. They are the nearest approach to a solid goll sase that the trade have yet seen.
Romisr . - The store of J. S. Atkinson, of Hopwell, Albert County. New Brunswick, was burglaticed on the night of the 3tst July, and wather 5 : the amount of over $\xi_{4} 00$ stolen. Two men named Witsh and White were subsequently arrested for the robbery and on trial convictil One of them was sentenced to the penitentiary for three geass and the other for two and half years.

Tat. Ui.il Reliable house of R. F. Simmons \& Co., manufacturars of toll $f$ ate chains, announce to the trade that there chans still lead the t . S. procession, in spite of all attempts of other makers to give them ther dust. They liave a lot of new and very desirable patterr.s out for this season's trade and our readers will do well to see them before they complete their purchasing.
A. K. Harmas, the Canadian representative of the Waltham Watch cumporte. has been enjoying the ocean bathing at I'rout's Neck, Mane. doring the past month. His Company express themselves as well saustred with their trade in Canada last jear, and they cught to te, as therr refreentative here has put in some very :elling work since he became a resident of the burg of Montreal.

A Free Exhmit. - Mr Edmund Scheuer invites the jewelers who visit Tuiv.itu duting the Exhibution to visit his warehouse and anspect, free of charge, his immense and varied stock of fancy clocks, bronzes. ect., in this line. Mr. Scheuer has for years made a specialty of these grods, and his free horological and art exhibit should attract every member $u f$ the craft whu desires to heep abreast of the tumes.

A Fise Show-Room.-Simpson, Hall, Miller \& Co. are fitting up a first-class show-room on the ground floor of therr factory at i 8 De Bresoles street, Montreal. The offices and show-room, which have heretofore been on the first flat up.stairs, will now be much more convenient for customers. Manager Whimby states that trade is good with his Company, and they bave plenty of work ahead for some time to come.

Harky Mansing, the genial western representative of T. H. Lee \& Son, took a trip down to New York last month, to purchase the fall goods for his firm. As our readers well know, Mr. Sydney Lee, who usually buys for the firn, has been laid up for some weeks with syphoid lever, at d being unable to take the trip. the firm showed its confidence in Mr. Manning's taste and judgment by sending him doun in his place.

Mr. Alfred Eaves, the popular Presidedt of the Canadian Jub. bers' Association, and Mrs. Eaves were passengers on the steamer Threc kiters which ran aground during a storm on Lake St. Peter. They were on their way to the seaside for a short holiday, but had to return to Montreal again before finally reaching their destination. Mr. Eaves is well pleased with his business so far this year and thinks the prospects for the fall trade are excellent.

A Pminanthronic Clock Maker.-According to the will of the late Wham I. Gilbert, the recently decease $i$ millionaire clock manufacturer. a $\mathrm{s}, \mathrm{m} m \mathrm{moducational}$ college, to be called the Gilbert Educational intutute, is to be established and endowed out of the estate. The terms of the endowment are peculiar, and show that Mr Gilbert was intolerant as regards tobacco, beer and spiritous liquors, the users of which are to be excluded from any advantages the college may afford.

Simison. Hall, Milier \& Co.. the well known electro plate manufacturers of Montreal, are having a fine assortment of their goods got ready for exhibition at the Toronto Irdustrial Exhibition of this year. Jewelers visiting the Exhibition should not fail to look it up and inspect it carefully. They invite the inspection of the jewelry trade, and will take particular pains to give them all the information about the goods, prices, etc., that they may desire. Don't fail to pay it a visit when at the fair.

A'treciate a Good Thing.-The truth of the advertising maxim, be sure you have the rigit kind of goods and then fire away and let the $f u$ l lic know it; is well exemplified by the experience of Messrs. $\dot{E} \& 1$ Gunther of this rity, as set forth in their letter in this issuc of Tur Traner. Messrs. Gunthers' experience could be duplicated by every wholesale house in Canada that has used our columns for the
purpose of making known the merits of their goods. The trade not only read it carefully, but as a rule keep it for reference.

Worth Examising - The jewelry window exhibit of George E. Trorey, of this city, is well worthy the inspection of every member of the trade. Ahhough it has the merit of beiog cheap and easily within the reach of every jeweler in the country, it is none the less an eftective symphony of gold, blue and white. the chitef ingledients of which are Ellis' new white paper cards, and Hemmong s blue jewelets' cotton. These and Mr. Trorey's admirable taste in the arrangement of the goods exhibited, have made his window a big attraction to the public for a couple of weeks past

Removal. - The many friends of Mr. George Chillas will te pleased to learn that he is now comfortably located in his new office in the Ellis building, 33 Wellington street east, next door to Messrs $P W$. Ellis $\&$ Co. Mr. Chillas has had his new premises fitted up very hand. somely, and in ites not only his fiiends, but the trade generally to call and make his office ther heajquarters while in the city during the Ea. hibition week. There are now nune wholesale jewelry houses on this "Maiden Lane " of Toronto, withn a compass of two blochs.

Mr. Charles Wramt, who for the past two years has had the management of the American Clock and Jewelry Co. of this city, has recently become one of the principal stockholders in the Gold and Silver Trading Co. of Torunto (hmited), and has accepted an offer from that corpiration to take the management of the watch repar de. partment of their business. Mr. Wright has a deservedly high reputa. tion as one of the mest skilfui watchmakers in this city, and under his atle supervision the Company can rest satisfied that ample justice wil be done to the watches entrusted to them for repairs.

The Horological instituta.-As will le seen by the advertisement on another page of this issue, the Canadian Horological Institute will hereafter be carried on by Mr. Henry Playtner, who has purchased the entire control of it from the firm of Beeton \& Playtner. As will be seen from the high testimonials which Mr. Playtner publishes, he is not only a first class watchmaker himself, lut is in evers way qualified to impart instruction to young men who dasire to avatl themseles of the facilities afforded by the Institute. If y a want any information about the institution over which Mr. Playtner presides, drop him a line and he will cheerfully answer your maquiries.

An Oild Watch. - The Lunenburg. N. B. Poopress has been shown the watch carried by Capt. D. C. Jessen, of that town, during an expedition against the Indians in 1758 . It is in the possession of jessen Rudolf, to whose ancestors it was willed by Caft. Jessen. It is an old-fashioned watch, with solid gold cases, and is still doing actuve service, and ticks away as merrily as it did on the morning of September 8, 1758 . As a part of ats history, it was lost for torty years and was finally found between the floors in a garret of the old house on Pelham street, known as ' old barracks." ard the person who found it used to declare that is was ticking lively and loudly at the time.

Gong for Him. - In reference to the failure of Mejer Moss, sr., of Moncton, N. B., some of the Toronto creditors say that they will absolutely refuse to make a compromise with him. The reason given is that some of the gocds which help to make up his habilties wete purchased by him ard put into stcck only a few days before heassigned and when he must have known he was insolvent. For these goods they insist on be ug pard in full, and unless this is done they propose to seek the add of the law as far as it will go. That Mr Moss recognizes the justice of this contention, is evident from the fact that he has since paid some of them in full as demanded.
R. H. Jurp, the athletic lacrosse player and jeweler of Orillia, managed to scare up enough business to land bim in Torunto on the $23^{\text {rd }}$ of last month. Of course the celebrated championship lacrosse match between Cornwall and Toronto had nothing to do with the trir, but all the same R. H. was on the grounds when the ball was faced. R. H. is perhaps like some other mercbants that we know of, they can always scare up enough business to take them either to Toronto or Montreal whenever an important lacrosse match is on the tapis, but their business fortunately never interferes with their enjoyment of the game. Mr. Jupp says that business is good with him. and prophecies a foll trade ahead.

# The Montreal Optical \& Jewelry Co., Ld. 

 Warehouse and Factory, 1685 Notre Dame St. Montreal.P. O. BOX 1054.

## ONLY MANUPACTURING OPTICIANS IN CANADA.

We are now offering to the Trade exceptional prices and the finest lines of all kinds of

# OPTICAL GOODS 

Ever Shown in the Dominion.

## Andemair's celebrated Opera Glasses, Field Glasses, Telescopes, Spectacles AND EYE GLASSES OF ALL KINDS, TRIAL LENS SETS, ETC.

Special care given to Prescription Trade and Customers' Repairs.
N.B. Our Travellers are now on the road. Reserve your Orders for these Goods. It will pay you.

## Montreal Optical and Jewelry Company, Limited.

The Rest 1:ine of Rolled Plate Cfiains.


Seud for Illustrated Sheet of Specialties for this Season. For Jobbers only.


Manufacturers of
Show Cases of every description in Nickel, Silves Walnut, Ebonized, etc.

Hardwood Store Fittings, Metal Sash Bars, er. Send for Catalogue and Price List.
Shop Rooms, Head Office and Factory: West Toronto Junction, Ont.

The deme Sllver Co. have now got fairly settled down in their new factory on Hayter street, and their improved facilities for manufacturing are already beginning to tell in the quantity of work they are turning out. The new building is very convenient, and when the contemplated improvements are all completed, will te one of the largest and test equipped factories of the kind on the Continent. The showroom and offices are finished in varnished oak and present a very handsome appearance. Manager Parker showed us a large quantity of goods which were being got ready for a customer in Australia, in which couniry the Company have for some time been doing a large and constantly moreasing business.

- Wr regret very much to learn of the death of Mr. A. C. Anderson's youngest child, on the 17 th of last month. What makes the affiction much more severc, was that the sad event was totally unexpected, Mr. Ander $u n$ having gone on his British Columbia trip only the week before, and left his family all in their usual good health. The news reached Mr. Anderson by wire while he was at Brandon, but on account of the distance he was unable to be present at the interment. We are sure that every member of the trade will join The Trader in offermg to Mr. Anderson their warmest sympathy and condolence in the aflliction through which he and his family have just been called upon to pass.

A (..nladrum Explained.-The Guide is apparently anxious to tind out " why the winged wheel, which is the Trade Mark of the American Watch Case Co, has a place on the frontispiece of Tue Trader if it be not to protect the interests and sound the praises of that Company." Well, if The Guide won't give the secret away, we will just whisper for its benefit that the original of the present frontispiece of The Trainer, was designed by an artist in Germany, (winged wheel and all) about the year 1883 , or at least three years before the American Watch Case Co. came into existence. After lying in our desk for sears, it was, with some slight modifications, adopted for our new heading and sent to a Toronto engraver for exccution in August, 1888 , or nearly a year before the A W. C Co adopind it as one of their trade marks. Perhaps The Guide will now be able to see the connection. We can't!

The Casadia: Watch Movement linctors.-The Jeuelers' Weckly announced last month: "It is quietly rumored about town. (Hamilton, Ont..) that a number of capitalists held a meeting in this city last Saturday for the purpose of establishing a watch factory here, one that will be first-class in every resfect. The capital stock will be $81,000,000$. of which $\$ 250,000$ is said to have been already subscribed." As usual one has to go from home to learn the news, and from the above it is eident that the New York Jacelers' Weckly knows more about the proposed wath h factory in Hamil:on than perple in Canada do. Enquiries in Hamilton elicit the fact that the principal jewelers of that city know vothing of the proposed watch factory, and do not think that there is any foundation for the report. We should say that after their experience with a comparatively simple clock factory, Hamilton capitalists will hardly care to tackle anything so complicated as the manufacture of watch movements.

As Old Jewelry House.-The house of Simons Bres. \& Co., of Philadelphia, the well-known cane and thimble manufacturers, this ycar celebrate the 5oth anniversary of their busincss carecr. This carecr has not only been a long but an honorable ore, so much so that whereever the house is hnown its name is a synonym for honorable and upright dealing. The goods of their manufacture have a large sale in Canada, and those dealers who have most thoroughly tested their qualty are the most ready to testify to the value of their trade mark as an unfailing index of good value and honest goods. The house, although well up in years, has not fallen tehind in the race for business; on the contriry, it is fully abreast of its competitors in the introduction of tasty and saleable novelties. The many members of the trade in Canada who have handled their goods will join Thr Trader in wishing the house a long lease of business prosperity.

Mr. James Ryrie, of Ryrie Bros. of this city, has just returned from a ver! pleasant outing of three weeks, spent on the banks of the Nipegon Tne party of which Mr. Ryrie was a member, had a most enjoyable tive. and came back to business looking decidedly healther and more sobust for their residence amidst the invigoraung breezes of Lake

Superior. As is woll known. Nipegon is one of the most celebrated t out streams in Canada, and naturally Mr. Ryrie's friends were pre. pared to listen to some very interestung, but of coursa truthful stories, about this branch of sport, on his return. Their astonishment may be imagined when that gentleman informed them that the party had really been unable to catch as many fish as they could eat. They all say that James may be a good onough fisherman in a practical was, but he lacks the first instinct of the average Amertcan fisherman in not being able to put the frills on after they have been hooked. He may improve, however.

Abvance in Silubr Cases.-As predicted in our last issue, the rise in silver bullion has caused a decided advance in silver cases, both im Canada and the United States, ranging from teo to fifteen per cent. As this advance was only just sufficient to cover the extra cost of the silver at the ume it was made, it is not improbable that another ad. vance will take place before long, as silver bullion thas since jumped up ten cents per ounce. It is now over $\$_{1.20}$ per ounce, with a strong probability of reaching $\mathbf{8 1 . 2 9}$ in the near future. The manufacturers of sterling silver ware have also been compelled to raise the price of their goods, and it is not improbable that the electro plate manufacturers will be forced to follow suit before long. Silver is now 30 per cent. higher than it was a jear ago. and unless electro plate manufacturers have had much larger profits than we think they have had, they can ill afford to shoulder such a loss as this advance on one of their most im. portant ingredients inust necessarily entail upon them.

A Nibw Firm.-Since our August issue went to press, the old firm of A. H. Welch of this city, has been reorganized by the introduction in:o it of Mr. Thomas Blatchford, a young gentleman well and favorably known amongst the business men of Toronto. Mr. Blatchford brings considerable financial strength to the firm, and will take the management of the office, a task for which his long trannug with the wholesale house of Vm . Brown has eminently qualified a m . The new firm have bought out the business of the American Clock and jeweiry Co. on Yonge street, and will remove their Adclaide street factory and store there as soon as the necessary alterations can be effected. Amongst the trade, this purchase is generally regarded as a good move for the nrm. and they should have no trouble in working up a large and profitable business, as the stand is one of the best in the city, and has been well and favorably known to the public for several years past. We wish the new firm success.

Death of A. S. Murray.-The trade will regrat to learn of the death of Mr. A. S. Murray, retail jeweler of London, Ont. Mr. Marray was one of the oldest and at one time the largest retail jewe ler in the city of London, if not in the Protince of Ontario. He was born near Embro in 1848 , and when a young man came to London and learned the jewelry trade with his brother, Mr. Hugh S. Murray. whose business he assumed a few years later. Since then he has been uninterruptedly connected with the jewelry trade until within a short time of his death. Mr. Murray was a werthy member of the South London Yresbyterian Church. He also belonged to St. George's Lodge, No. 42, A. F. and A M , was a companion of St. John's Chapter, No. 3. Royal Arch, a frater of Richard Cceur de Lion P'receptory. No 4, Knights Templar, a member of the Independent Order of Foresters and the Royal drcanum society. He was 42 years old and leaves a wife and four young children, three of whom are girls.

A Credit to Canada - One of the finest silver ..uphtes cuer manufactured in Canada was on exhibition here last month, belouging to the Military Riffe League of the Dominion, and was won in the recent contest by the 54th battalion, of Windsor Mills, Quebec. of which Lord Aylmer is commander. The material of which the tropy is made is hnown as "old silver and oxydized ware," and the design is a most artistic one. The cup proper siands on a base $22 \times 10$ inches, on the corner of which are figures of Canadian soldiers knecling and in the act of firing, and miniature field guns, reprerienting each branch of the militia which competed. On the summit of the trophy is a figure of a Canadian volunteer wearing the range uniform. A scenc is engraved on a plate in the front of the cup representing a field day on the ranges. The whole thing is 3 inches high The Meriden Britannia Co. are the manufacturers, and the workmaoship is not only a cre it to them, but to the manufacturing interests of Canada"

# Do Not Be Deferivo 

By the loud tal.k and profuse use of printers' ink, concerning "Plated Seamless Wire."

Wire made with gold solder presents a


And is practically Seamless.

## THE IMPOOTTANT THING IS DUALITY.

## WHAT IS THE THICKNESS OF GOLD USED?

that is what concerns the consumer.

# QUALITY ASSURED, TROUBLE AVOIDEi) 

 If you use the$$
\begin{aligned}
& \text { R. F. S. \& CO. } \\
& \text { Rolled gold plated chains. }
\end{aligned}
$$

Mr. Buscir, of the late wholesale hirm of Rothschild is Co., of this caty, whith made its exit from the Canadian jewelry business a few years ak"in anything but a favorable way for the creditors of that concern, paid a business wisit to Toronto last month, for the parpose of disponag of a stock of cheap, low quality diamonds, and if one can believe the stories told by the retail crade, met with a considerable amount ut success in his venture. If this is true, it certainly says but little for the retail jewelers who patronized him, nor does it afford a great deal of encouragement to the honest Canadian wholesale jewelers and diamond dealers to see the trade patronize these trade birds of passage in such a liberal manner. We have not the slightest doubt that qualuty considered, our own Canadian diamond merchants can and are willing to sell honest goods as cheaply as any jobbers from abroad, and we think they certainly should get the preference over people of the stamp and mercantile record of the gentlemen above referred to.

As Einjorable Trir.-Last month Messrs. M. C. and Willie Ellis, of the firm of P. W. Ellis \& Co., started north on a two week's camp. ing cruse amongst the wilds of Muskoka. Most of the time was spent in paddling along streams, running rapids, making portages, exploring lates and having a good time generally. Although the work was hard and the fare plain, these gentlemen enjoyed the trip most thoroughly : and although they came tome bardened in muscle and tanned in complexion, they both succeeded in laying up a store of health, that we trust will carry them along in good shape until they can get another chance of a similar outing. If they do not change their minds they propose next year to push their way clear through to Hudson's Paj, a fear hatdly ever attempted by white men. One thing is pretty certain. however, if they once start out on the trip, they will get there. unless somethong bigger than Niagara blocks their way. It is this faculty of overcomng difficuities, which seems to be inherent in every member of the firm, which has doubtless proved one of the main factors in their very successful mercantile career.

Recollections of Gengral Grant. - We have to thank Mr. Leurge W. Childs, of Philadelphia, for an advance copy of his new book, entitled "Recollections of Generat Grant.' While this work contaus much new matter that will be of great interest to cvery admirer of General Grant, and will undoubtedly raise him higher in the estumation of the American people, its value is somewhat marred by the vein of egotism which runs through it, making the great hero of the late cual war seemingly play an inferior part on the stage of public affars to the gentl. -7 who writes the book. We have always had a high opimon of Mr. unilds as a public spirited man, whose generous gilts in England have done much towards drawing the two great AngloSaxun nations closer together, and we are sorry that in this work be seems to evince such a strong desire to bring these good deeds before the notuce of the public. Outside of this failing the book is of great interest, and will be eagerly read by every person who desires to fathom the undercurrents of American political life during the past twenty years. We commend a perusal of its pages to our readers.

As Amer Story.-One of the strangest stories that we have yet seen about the enterprise of those impudent and noisy little English sparrows, is told by the Sarnia Obserter as follows: "The town clock stopped at it Thursday morning and Mr. Williams on going to ascertain the cause found thit the hands bad been securely tied down by strands of twine and grass. The mischief had been done by a pair of English sparrows, who had selected the angle formed by the hands as a suitablesite for a nest. The movement of the hands interfered with their plans, and the burds evidently put their wits to work to devise a remedy that would secure the stability of their nest. Their first scheme was to wind the shaft on which the hands are pivoted round and round with grass and cords. That failing, they thed thehands to each other and to the frameworh in such a manner that it took considerable time and a great deal of labor on Mr. Williams' part to remove the obstructions. The engineering shill displayed by the birds in accomplishing their object showed that they possessed reasoning powers of no mean order, besides an amount ot iadustry and perseverance in gathering the necessary material withn the tew hours at their disposal that it is almost incredible."

It s Exglish, You Kinow. - A good laugh has been had over a recent order-in-council which runs as follows: "The Prime Minister is of opinion that the only quiestion with respect to the spelling of such words
as "honour," "favour," " labour," " honourable" and the like is what is the mode now accepted by the best authorities in England. It appears to him 10 be obvious that the same ss stem should obtain in all portions of the British Empire, and on a reference to the best dictionaries and encyclopedias now in use in England it will be seen that those words are spelt with the " a " and that such forms as "labor," " favor," " honor," ' honorable, ' etc., are apparently contmed to the United States with the exception of some few instances where they have been adopted in Canada. The Prime Minister, in consequence of this reference, has :aken occasion to enquire into the mode of spelling these words in official and legislatice use in England, and he has ascertained that the " $u$ ' is in all such cases retaned, and he therefore recommends the issue of instructions to the effect that in all ollicial documents in the Cartadia Gatefte and in the Dommon statutes the English practice be uniformly followed." It is truly wonderful how great minds can ocrupy themselves with such absurdly small matters as the above.

A Tuibe Detected.-Happily for the good name of the craft, dishonesty amongst the employees of our jewelry firms is of such a rare occurrence as to be specially noted whe: an instance doescome to light. Several months ago P. W. Ellis \& Co., wholesale jewelers, began to miss articles of jewelry from their stock. They set a number of traps to catch the thief, bat so cleverly was his work done that they could form no clear idea as to who the real culprit was until last month, when suspicion fell on Edward Griffiths, a porter for the firm, who lives at 33 Water street. Acting Detective Watson was engaged to work up the case, and the evidence aganst Griffiths was so well founded that he felt ustified in searching his house. There he found a brass clock, a gold fob chain, a hair chain and other articles, which were identified as the Messrs. Ellis' properts. After the recovery of the jewelry Griffiths was at once placed under arrest. It is alleged also that white known by his true name-Griffiths-by his business acquaintances, he has been living under the name of Dwyer with a woman to whom he is not married, his wife having separated from him some time ago. On being arraigned before the Police Magistrate, Griffiths pleaded guilty to the charge, and was sentenced to three months in the Central Prison.

A Groming Industry.-During The Trader's visit to Montreal last month, he took the opportunity of inspecting the roll plate chain factory of Messrs. Bolt \& Co. of that city. The manufacture of rolled plate chains is a comparatively new industry for Canada, and we were more than astonished at the thorough manner in which this firm has fitted up their factory, and the perfection to which they have already at:ained in the manufacture of these special goods. Their machinery is of the latest and most approved kind, and they have imported norkmen of tried skill from the United States to superintend every department of the business. At present they show a range of two hundred and fifty different patterns of Albert chains, which are first-class, both in design and finish. As regaris quality they guarantee them to be exactly what they are represented, and from what we saw we should say that any guarantee that these gentlemen make will be carried out to the very letter. The manulacturing is under the personal super vision of Mr. Bolt, a workman of long and varied experience in the manufacture of jeweiry, while the office work is done by our old and estecmed friend Mr. Millar, formerly of Quetec, whose repulation for straightforward honest dealing stands second to none it the province.

Tue New. York: World still keeps ij its pretence of supplying watches at cost to the dear public, inorder as it alleges, to expose the monopoly and defeat the extortion of the watch trust, as it terms the U. S. Watch Manufacturers' Association. That this pretence is false, is amply proved by the fact that if, as they allege, they pay the same price for the watches (which they sell at cost) as do the retail jewelers of the United States, then it must follow as a matter of course that they are not hurting the watch trust, for they are, according to their own show. ing, paying them exactly the same exhorbitant rate of profit as they have always had. Any one can see that if this is their object. they have gone the wrong way about attaining it, and all the good (?) they have accomplished is to damage to a considerable extent the trade of every retail jeweler in the United States and Canada by scattering broadcast one of the secrets of their business, and cutting off one of their chief sources of profit. The World's dodge is so thin that we can only

## LEAD THEM ALL.


"JOFN C. DUEBER." Nickel, 15 Ruby Jewels, in settings adjusted to heat and cold, sunk Seconds and Circle Dlal, upright Arable Flgures and Seconds, Breguet Hair Spring, Compensation Balance, Patent Regulator. Specially guaranteed to be the best time-keeper in the world for the price, and superior to any other full plate Watch made outside of the Hampden Watch Factories.


RAILDAX SPECEAK.-Nickel. 17 extrn nno luby Jewein it vinh Settings. Joweled Contre mannineonty damankeonod and nushod, Bovel heard Gili Serorty, ink Gold Patone Begulator. Exymasion Halauce, pertectly compen. atind and accurately vimod to Poslefon and leochrominm. Doublo Sunk cilasa, Enamel Dlal, with Red Margiaal Fig. uios. Brecuct Itrit Springs.

206. Fino Nickel Murement, ul Jomels in Sottinge, Compensation Belencu.


THE DUEBER WATCH CO. -Nickel. 11 Jarnfa in sol-unge. I'ntoat Hogulator, homan Circular Diel, Sjado liands.

## WILLIAM ALLEN YOUNG,

## WATCHES FOR WATCHMAKERS.

We call your attention to our new movements : 18 Size Hunting and Open Face "SPECIAL RAILWAY," "JOHN G, DUEBER", "DUEBER"" "DUERER WATCH CO," NOTHING BETTER MADE FOR THE PRICE.

Please examine and compare them with the class of Movements the Trust asks you to buy, at abuat the same prices, and in some instances, 25 per cent. in advance.

You will see after an inpartial examination of these Movements how little chance there is to sell Combine goods, as soon as our Movements are shown to the entire trade.

Why they wanted a Combine must be plain to you by this time.
"They cannot compete with the class of goods we make."
We hope in conducting your business you do not run it on the plan of a benevolentinstitution, buying goods for charity's sake, holding up a Combination of Manufacturers, who cannot and dare not sell their goods in open competition, on their merits.
the dueber watch case manufacturing co.


Electros supplied to dealers who wish to advertise Dueber-Hampden Watches and Cases. Write for Price List and Samples of above new movements if you have not already placed order. THE TRADE ONLY SUPPLIED.

Address all communications to

## WILLIAM ALLEN YOUNG,

Bank of Commerce Building,

NEW COODS JUST ARRIVED.

characterize it as a mean, unmanly and untruthful attempt of a great paper to boom its circulation by damaging the business of a respectable class of .: adesmen who never did it any harm. If their action does not proce a veritable boomerang, we shall have a smaller opinton of the jatelligence and love of fair play of American citizens than we have hitherto held.

As Rinoiable Gathering -On Monday, August inth. a very pleasams licenic was enjoged by the emplogees of P. W Ellis it Co., whth therr families and friends, at Victoria Patk. The weather was all that cuall be desired by the most fastidious, the catering good. and fully appreciated by all who partook of it. The athletic sports were entered mo with a spirit which shows that the day's outing was enjoped by all. Among the visitors were M. Woodmancy. representing Potter A Buffingion. Providence, R I.. and Mr. N. I. Ashton, representme Messrs. Kent \& Stanley, Providence, R. I., who enjoyed the day; pleasure immensels. In the evening the prizes were distrituted by atr $k$. Y. lellis, and consisted of a number of valuable articles constributed by the fisends of the establishment. Mr. IP. W. Eillis, in response to a call. was received with hearty applause. He spoke of the benefit derived from such gatherings, and the stimulus given to all to push fornard for the common weal. He was pleased to meet so many who had been years in the employ of the firm, and urusted they might have many such gatherings. The whole proceedings passed off without a intch, and those present were one and all of the opimon that the committee of management. consisting of Thomas D . Ellis. W. Bruce, E. Harrison, G. Harding and J. Hinckleg, weli deserve the vote of thanhs tendered them for their services. Mr. T. D. Fillis occupied the respunsible position of referce during the athletic contests, while Mr. J. A Put officiated as stazter.
ayekilan Tourists.-Messrs. Jno. L. Sheppard and Chas. E. Fong of the Keystone Watch Case Co., of Philadelphia, passed through this ciry hast week on their way home, after having had a most enpoyable trip up through the St. Lawsence and Lake Ontario. While at Quebec, they inspected the Citadel, and like any other old veteran of the American Rebellion, john L. was very anxious to find out all about the strength and equipment of this famous fortress. While satisf) ing therr curtosity they came across a small cannon at the centre of the parade ground, which, as the inscription sets forth. was captured by the Bratish at the famous battle of Bunker Hill. This, when the guard s back was zurned. John L. tried to spirit away by concealing it underneath his coat tail, but his patriotic effort to restore this venerable trophy to the U.S. was detected by the guard's watchfulness, and that gentleman was reluctantly compelled to depart without the much coveted piece of arthlery. John L. is not by any means the first Ameriean patriot who has longed to annex this zelic for the purpose of wearing it as a watch charm. and it is probable that he will not be the last. If this piece of artillery has finally to go over the border for any such purpose, we would just as soon see !ohn L. wearing it as any man we hnow of, for no American gentleman of our acquaintance could wear a more gracefully than he could, and it mighe serve the important and r.ecessary purpose of blowing the " snide" filled case, of which John L . is such an inplacable enemy, out of existence.

Hun The . Traver's" Qleky was not Answered. -In reply to the query contained in one of our last month's editorial notes, headed "Preople who live in glass houses." the frecelers' Guife endeavors to draw a sed herring across the trail by giving an emphatic contradiction of. and making a $\$ 500$ bluff about, a charge that neither The Traner. nor anyone else, so far as we know, ever made against it. Its reply is sumfly puting up a man of straw, and not only knocking him down. bu: actually kicking him for falling. The Guide's bluff and bluster about not being the organ of the Charles Stark Co., or its alias. the Tosoato Watch Case Co., has nothing whatever to do with the point at issue, and is simply so much dust kicked up in order to withdraw atteanon from our guery. If the Guicic can keep cool long enough to read carefully the note it has done us the honor cf putting at the head of its editorial columns, it will find that sur query was a simple re. grest that it would "take time to explain to the retall jewelers of Canada just what connection it has with the Charles Stark Co., who manufacture watch cases under the name of the Torontr Watch Case

Co., and who, if the trade might judge by its advertisements in the Guide, furmshet the inspiration for the charges made by that journal against Till. Tramer and the American Watch Case Compang.: The Gudif's attempt to enlist sympathy by charging Tue Trader with attemptong to bach cap it, is the veriest bosh, and comes with exceeding bad grace from a journal which has just been clearly convicted of the very crime whict it is so cager to fasten upon us. The trade, as well as The Tranek, are st:ll waiting for a straghforward and intelligent answer to our original query.

## Otr Melp Ciolemn.


NO CHARGIE is therefore mado for advertising in this colemn, but the subject. matter strould not exceet five type lines, or about co words.

A
N A: SAI.ESMAN. with extensive acquaintance with the Maratime provinces trade would like a postuon to handle either watches ind jewelry or materials and tools. (iood references Address, A S.I... care of Tranek l'un Co. Tofonto

A
RARE CHANCE for a youug man wishong to start business in a A good hee village, with a population of about 2,000 The owner will sell all or part of stock to suit purchaser. Good reasons for selling ad Iress, Retailer. care of Elmund Scheuer, a Wellington St West, Toronto

TOR SAlE, one Hopkins lathe and attachments, one Hophins pivoung duck, one Snyder bezelchuck and one bow hathe. Also old establashed Toronto business with targe reparr trade, splendid chance for young man. Address, J. Woon, $20: 2$ Berheley st. loronto.

TOR SAL.E.- it Whitcomb it Lathe (soft) with Webster foot.wherl 1 counter shaft, 7 wire, 2 whecl, i screw and $S$ cemem chucks, and 1 saw arbor with 3 saws, 1 emery wheel and 4 steel centres Also full hit of watchmakers' tools, with good will of a good repairing business. Address. Lox 4 S. Sunderland. Ons
TOR SALE- In a town of about $\ddagger 000$ inhabitants, a well established Jewelry Store, in connection with a Book, Stationery and Fancy Gouds Will sell watches, clocks, jewelry, silver-ware, optucal goods, tools, material, safe and benches. Owner retiring from the business. Or will sell all and rent store. Stock abrout $\$ 5500$. Correspondence strictly confidential. Apply J. A. G., care of Goldsmiths' Co.'Toronto.

S
ITCATION wanted as watchmaker. or uncer instructions preferred. four years' experience, can furnish best of references. dddress, " Watchasak:k." 55 Gould St., Toronto.
(YITLATION is open to an experiences Watchmaher Keference D required as so habits Apply immediately is H Pout.ock \& Co. 454 Main St . Winniper.
CAfES-Second hand, goodas new. very cheap fire-proof. $7^{2}$ in. S high. $33 \pm$ wide. 27 deep, price $\$_{70}$ Burglar and fre-proof. $47 x$
 $10^{\circ} 0$ for cash. All with the latest improvements. A C Asderson \& Co. Turonto.
CITCATION WA.VTED by young man al years of age. to work 1 under instzuctions in good shop Good salesman and book-keeper. Address, Lock Box 303, Creemore, Ont
CITUATION W.AXTED-Watchmaker with five years experience 1) in a first class cuty shop desires situation Has a complete kit of tools. including an American lathe and atachments. Address, B. 1. Z . care of Tramer pera Co. Totonto
GITXATIO: WaNTED.-By young man, where he would bave a D chanse to improve, who has worked two years at the trade. Can do all kamds of plain wateh, clock and jewelry repairing. Wages not so much $m$, object as a good place. Can give best of references. Address, Watcinsaker, Box S5, Glisgow. Ont.
IVANTED - In Nova Scotia, a good Watchmaker and Engraver. Steady cmployment to a steady man. Address, Nova Scotin. cate of Trader pue. Co.. Toionio.
WA.ITID situation as improver to watchmaking. can do all ordinary work. I have had four years' crperience and can furnish best of references. Address 3 3ox 171, Owen Sound.
WATCIMAKEER AND JEWELER wants permanent situation. Have had six ycirs good experience: can flurnish best of references, have full set of tools. City preferted. Address, Jasmes Fair, Ayt, Oat.

# HO! FOR 76 YORK ST. C. AND 2 <br> <br> THE TORONTO EXHIBITION. 

 <br> <br> THE TORONTO EXHIBITION.}

Study this Map and you will see how convenient 76 is to the Union Station and all the best Hotels.


Stop at 76 on your way from the Station. Make 76 your Parcel Office. Have all your Letters addressed to '76. Meet your friends at 96 . Look at the Goods at 76. Buy what you want to at 76. But DON'T BUY at 76 what you don't require or what is not the very best value. Come and see us at y8, for we want to have a "shake" at any rate.

## The HEMMING BROS. Co.



## HORN : GOODS.t

We wish to ask the especial attention of those jewelers who deal in Fancy Goods to. this latest addition to our line. We believe that there has never before been offered a line which so completely combined usefulness and attractiveness. The finish of our horn goods cannot be excelled. We have also aimed at strength and durability as will
 be seen by the substitution of strong chains for the American practice of using flimsy ribbons. We show below a few designs to give an idea of the line, and will send an illustrated list with full prices to any one writing for it.


Whisk Holder.


Duster Hol.der.


Whisk Holder.

Whisk Holder.


Inkstand.



Perfume Stand.

# NEW HAVEN CLOCK COMPANY ALWAYS TO THE FORE. 



## LOWEST PRICES

## MOST SALEABLE PATTERNS

# E. \& A. Gunther, - Toronto. CAINADIAIT AGEITTS. 

Goods well bought are half sold; thereiore buy your Clocks from a regular Clock Jobbing House, who have selected the best and only the best sellers.

We have all facilities for rapid and careful shipment. STAPLE PATTERNS ALWAYS IN STOCK.

We are also SOLE CANADIAN AGENTS for the

## Wise and ©therwise.

Chiff -" Have you got any clues ?" Subordinate-"No, but I've caught the criminal." Chief-" Well, you mast go out and get a few clues. It will never do to break established rules jou know"

He: Ifkfo to Call.-Sweet Cirl -"If it's just the same, Mr. Mashuer, you needn't trouble yourself to call any more." Mashuer (earnest!y) - "Oh, thanks; it's no trouble at all-I like to call."

Trletiraph Clark (reading message) - "What's this? Will marty you whenever you wish !" Aged Spinster-"Yes, do you think it is too forward ? It's my first offer and I'm afraid he'll get away."
Lorl Noomtes-" Aw, I say, captain, what is that land we see orah there?" Captain-"That is America, my lord." l.ord Noodles-"Ye don't say! I thought America was a larger country than that."

ANatural. Mistake.-Maud (near-sighted) -_"Do you ste those two canes stuck in the sand over there with a bathing suit hanging on them ?" Madge"Those aren't canes, dear; that's Miss Slimlim sunning herself."

First Small Boy-"Say,why is a lamp-post like a watchman?" Sccond Small Boy-"Give it up." First Small Boy-" Because it's out all night." Secend Small Boy--" Ah, what yer giving us? It's a-light all night where I live anyway:"

Mrs. Watis-"Did you enjoy your summer trip very much ?" Mrs. Pouts-"Oh, just moderately. I might have enjojed it bet. ter if the city papers had not come every day and made me realize that I was $15^{c}$ miles away from a bargain counter."

None of His Affalr. - During a melo-dramatic performance a stout lady began to sob violently. Anxious husband"Come, my dear, let us be going; this is tou much for your feelings." "What does it matter to you so long as I am enjoying myse!f?"

Mk. Gold-" You are tipsy again. You'll bring us to the poorhouse by your drinking." Jeweler Gold-"Y'r (hic) 'staken, $m$ ' dear. 'The bes' 'thorities agree that the frequent ush er (hic) 'ohol keeps stock bright an' is indispensable to the (hic) 'cess o' er jewelry business."

Mks. Gazzam-"Mr. Jaysmith is a man of great penetration even if he is inclined to be miserly." Gazzam - "Penetration? Oh, yes, everybody knows of his penny traits."

Arthur De Ginit.-" Old woman, dye knaw any mawiageable young country ladies suitable to a fellah like me?" Gian. ny Sharpe (with a look of disapproval at the young man's single eye glass): "Wall, Deacon Smiley's got a,gal they say is addled, she mought take yer."
"Uncle John," said little Emily, " do you know that a baby that was fed on elephant's milk gained twenty pounds in a week?" "Nonsense! Impossible !" exclaimed Uncle John, and then asked: "Whose baby was it?" "It was the elephant's baby," replied little Emily.
"Iravel.ter (to old engine-driver)-"I s'pose in your long life on the road you have met with more or less mishaps?" Engine-driver-"Oh, yes, lot's of 'em." Traveller-m"Probably run over dozen's of people?" Engine-driver (with pride)" Dozens? I've run over hundreds ?"


THE WANING OF THE HONEYMOON.
Groos: "A ring around the moon is a sign of rain."
Bkibe (strcetly): "And a ning around a tooman's finger is a sign of-2" Groon (sadly): "Reign."一The jurs.
"May I take a kiss before I go, dearest ?" said George, as he prepared to depart. "You may borrow one, George," said charming Jennie, "but you must not take one, for mother has repeatedly cautioned me against giving kisses to anyone." So Gcorge was obliged to borrow.
"IVhen I think of the wrongs committed on the American Indran," exclaimed the distinguished lecturer, "I blush for my country!" The hireling in the gallery turned the red light on the impassioned orator, and the audience applanded with wild enthusiasm. The blush was a magnificent success.
" What's the matter ?" asked the stage manager, who noticed that something was going wrong during the grave-digging scene in Hamlet. "It's the first gravedigger," whispered Horatio, "he says that unless the manager sends him at once the price of a good supper, he's going to eat the loaf of bread that they're using for Yorick's skull."

A prejudiced man, like some textile material, is cut on the bias.

Fish and Fiesh. -"Why does Mr. Iank go so often to fish ?" "He expects to gain flesh."

Professor-" Yes, gentlemen, Columbus owes his glory, at least in part, to the fact that America had not been discovcred before"

Firejroof.-"I thought that building was fire proof,' remarked Burns, as he looked at the ruins. "Well, it's pretty good proof-of-a-fire just now, anyhow," remarked Underwriter.

What is the definition of an old maid? $A$ woman that has been made a long time.

## SIMPS0N, HALL, MILLER \& C0.,

## Ortistic and L'seful Lolfow Ware. $\Rightarrow$

Our Hollow Ware is heavily Electro-Plated upon Fine Hard White Metal, and there is nothing in Dcsigning, Ornamentation or Manufacturing which our artists and workmen cannot produce.

## OUR FACILITIES FOR EXECUTING FINE WORK ARE UNEXCELLED.

OUR ASSORTMENT IS SUITABLE FOR THE BEST TRADE.

Allour Fint-Wnredears tha'lirade Mnt 1 RADE AIARK FOR \%iverocers. KNIVES,FORKS,SPOONS. And in Foully Gustantced.



OUR SPOONS, FORKS, ETC., PLATED UPON THE FINEST NICKEL SILVER IN

## EXTRA, DOUBLE, TRIPLE AND SECTIONAL PLATE.

Full lines of over lFORTY STAPLEE AND FANCY PIECES in each pattern in Geneva, St. James, Countess, Windsor, Oval Thread, etc. Made under the supervision, and quality guaranteed and controlled by WM. ROGERS, formerly of Hartford and Meriden. (Wm. Rogers, Sr., died iS83.)

## A. M. BROCK,

 IMPORTER OF
## W ATCHMAKERS'

ANTD

## JEWELERS'

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JEWMTERS WANTED,
to semd thidir nerabaviva to

## J. S. MURRAY \& CO.

GENERAL AND ORNAMENTAL
ENGRAVERS,

FOOM 58,

## SOMETHING NEWINJEWELERS'SAFES



1 N ORIDER to meet the wishes of the jewelry trade, we have at last succeeded in perfecting a new style of safe for jewelers' use, combining the advantages of first-class

## FIRE AND BURGLAR PROOF SECURITY WITH MODERATE COST.

THE above cut represents our new style of Fire and Burglar Proof Safe for Jewelers, which has an entire lining inside of bext
five ply welded Chrome steel and iron, with heavy Burglar Proof door, made any thickness required, and which is securels attached to the Fire-proof door. The Burglar Proof Door is fitted with rubber tube packing to prevent the use of explosives, and is lucked with fuur wheel Combnation Luck having our patent Enlarged Centre Lock Spindle and Bolt Handle.

To the above improvements is also added our new patent

## DOUBLE TONGUE AND GROOVE FIRE-PROOOF DOORS

this being the latest improvement in Fire Proof Safes, and PATENTED BY US JANUARY $14 \mathrm{TH}, 1886$. This door is fitted with a TONGUE made of wrought iron, correspondug wath and locking into a GROOVE, made of same material, on the doo frame. To both of these is connected a SECOND TONGUE and GROOVE made of thin galvanized steel, which is filled wit non-conducting material thus making

TWO COMPLETE TONGUES AND TWO GROOVES IN EACH DOOR.
and which we mantan is the best fire-proof safe now made.
CATALOGUES AND PRICES ON APPLICATION.

# J. \& J. TAYLOR, <br> TORONTO SAFH WORKS 

 117 and 119 Front St. East, Toronto.
# A <br> <br> TELEPHONE CONVER with THE TRADE. 

 <br> <br> TELEPHONE CONVERwith THE TRADE.
}

A. W. C. Co.-IIello, Central!

Central.-Yes, who do you want?
A. W. C. Co.-Give us the Retail Jewelers of Canada.

Retail Ferrelers.-Hello, who is it that wants to speak to us.
A. W. C. Co.-THE AMERICAN WATCH CASE COMPANY, of 67 Adelaide Street West, Toronto, is speaking, and they just want to inform you that they absolutely refuse to accept any responsibility for any Gold, Siiver or Gold Filled Watch Case unless it bears one of their Registered Trade Marks.

Retail fewelers.-That's all right, but just tell us what are your registered trade marks?
A. W. C. Co.-Our trade mark on all Gold and Silver Cases is a "Maltese Cross," ( 3 ) and on all Filled Cases a "Winged Wheel," ( and when you are buying Cases always look for these stamps. If they are stamped with one (them our Company will guarantee the quality and workmanship, of the Case, nc matter who sells it to you.

Retail fewelers.-That's first-class as far as it goes, but why don't you name your Filled Cases so that we can nyder exactly what we want from our jobber?
A.W. C. Co.-We have done so. In 14 K. Filled we make two different kinds of O. F. Screw Cases, the "Premier" and the "Cashier," and one Hunting Case called the "Cashier." In 10 Y . Filled we make the "Fortune" in Open Face and Hunting. Every one of our Filled Cases has one of these names stamped in it in plain letters right above our trade mark of the Winged Wheel, so that you can't make any mistake about them.

Retail fetveiers.-Thanks! We will certainly bear these things in wind when next we buy cases. In the meantime let your Company keep right straight along as you have hereiofore done and give us first-class goods that we can swear by. We want to sell honest goods that we can conscientiously tecommend.
A.W.C. Co.-Thank you, gentlemen, your advice is first-class, and we will always try and deserve your confidence. Good-bye.

# THE GULSSMTHS' STCCK COMPAMY OF CAMOOA, (LIMITED) 

48 YONGE STREET, , - - - TORONTO, ONT.

## ANSONIA CLOCKS.



GOLD AND SILVER HEAD CANES AND UMBRELLAS. GOLD PENCILS AND PENS. SILVER AND GOLD THIMBLES.

<br>WATCHES.



ENGLISH GOLD AND SILVER JEWEPRY.
AMERICAN ROLL PLATE JEWELRY. DOMESTIC GOLD AND SILVER GOODS.


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