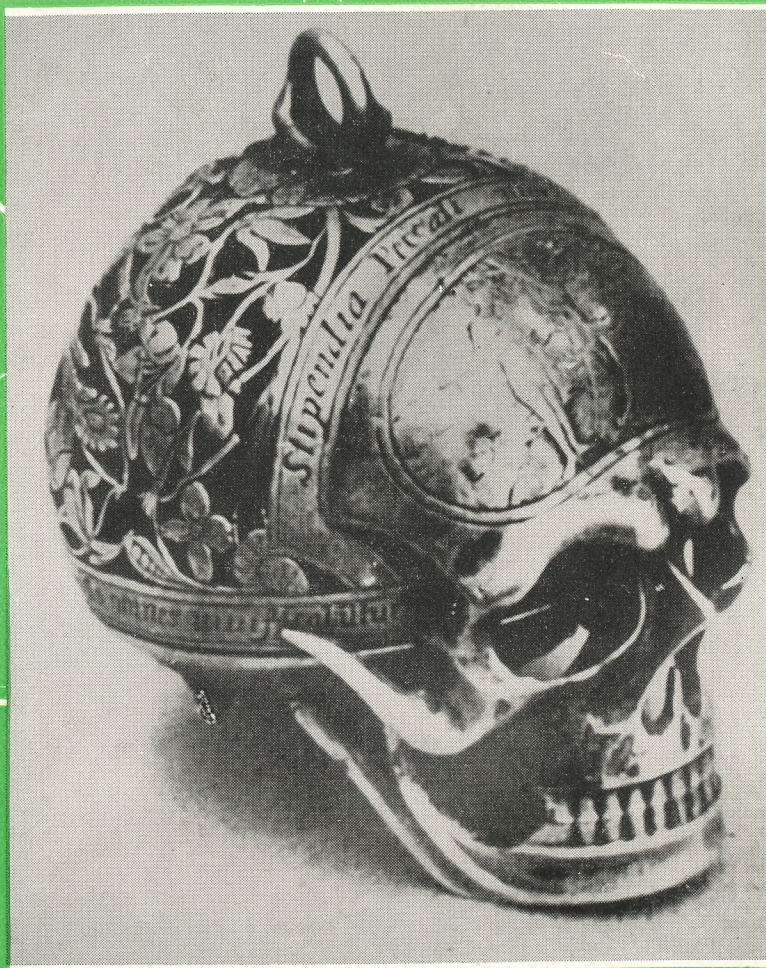


The H.I.A. Journal

OFFICIAL PUBLICATION OF THE HOROLOGICAL INSTITUTE OF AMERICA.



PP. 54

December, 1949

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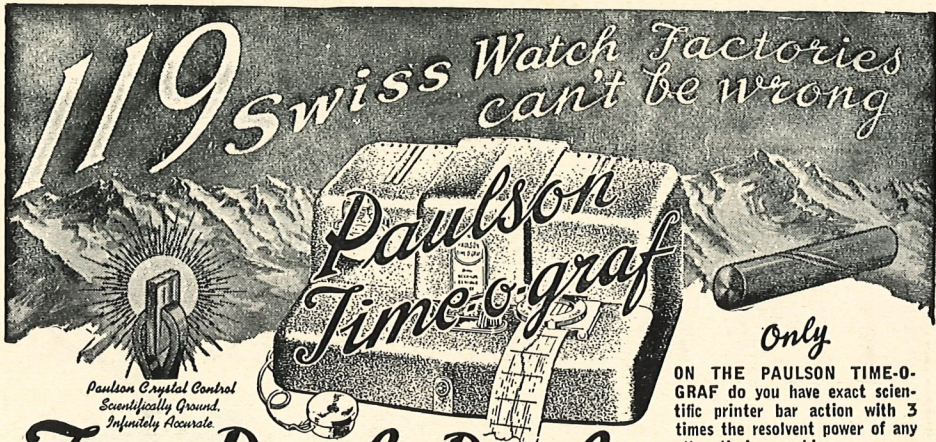
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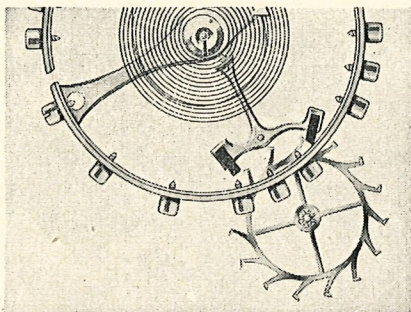
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The WATCHMAKERS OF SWITZERLAND



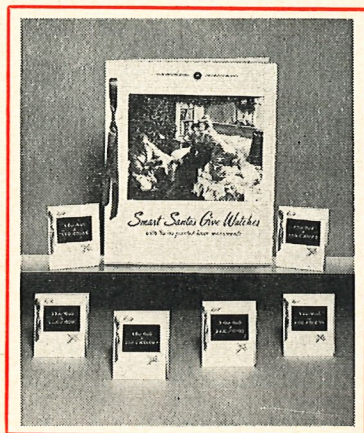
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Merchandising puts the final touch on our sales program. Hard-hitting displays like the famous Watch Inspection Time display, and the Christmas

display that you're now using, work to build business right in your store. They're tied in strongly with advertising — pull many a customer into your door.



Once again — these displays worked for you — and you worked with them — and again it paid off in better business!

To check on our program, we met you at conventions, group and association meetings, and (as often as we could) in your own stores. It's not possible to personally keep in touch with every jeweler in the country, but we *do* want your criticisms and suggestions. So, if you've a comment, please send it on to The Watchmakers of Switzerland.

Next year will see the program of The Watchmakers of Switzerland continuing, intensifying, and improving, for — as we said earlier — we like to work with jewelers!

SEE NEXT PAGES

The WATCHMAKERS



OF SWITZERLAND

Christmas Greetings

to the trade...

We'd like to send you all a personal Christmas card. But — what with Catalogues, Dictionaries, letters, merchandising pieces and all the rest of the repair program — we just didn't make it.

We do want to say "thank you" to everybody. To Trade Groups and Associations... Importers, Wholesalers, Jobbers and Retailers... Watchmakers, Jewelers, Sales Clerks... everybody.

For the success of The Official Swiss Watch Repair Parts Program can only be measured by your approval. And it has been made possible only by your cooperation.

The Watchmakers of Switzerland sincerely hope that this repair program is useful to you. As time goes on—new features will be added and existing services will be expanded. We'll keep you informed of all developments through these trade ads.

About the only unfinished business of the year is to announce the winners of our big Watch Inspection Time Contest. Unfortunately, this ad went to press before judging was completed — but winners will be announced elsewhere in this magazine.

The WATCHMAKERS OF SWITZERLAND

These are the services of The Official Swiss Watch Repair Parts Program. They are successful only so long as they are useful to you. We hope that you will make the most of each one.

1. The Official Swiss Watch Repair Parts Information Bureau, at 730 Fifth Avenue, New York, N. Y., is in full operation. Although the bureau does not sell parts, it is a source of repair information and data about the repair program. Trained technicians are ready to supply you with any information you may need.

2. The Official Catalogue of Swiss Watch Repair Parts (Parts I & II) is in use. More than 45,000 requests for Part I have been processed and, recently, Part II has been mailed out to all holders of Part I. This complete distribution insures wide usage and acceptance of the new identification and ordering system set into operation by the Catalogue.

3. The Official Dictionary of Watch Parts has sold out its first edition. It's used principally by

highly skilled watchmakers and large watch repair departments—who need the complete coverage of parts given by the dictionary.

4. Officially Packaged Parts. Jewelers and watchmakers are now receiving—through their regular distribution channels—packaged staffs and stems for the most widely used Ebauches movements. Refills, packaged in threes, are also available from regular jobbers.

5. The Official Cabinet for Swiss Watch Repair Parts is being manufactured in the U. S. A. from a Swiss design. It has been well received by the trade as a companion piece to the packaged parts. This is the only cabinet especially designed to hold these new, packaged parts.

6. Official Speaker's kits. Two of these kits, complete with informative slides, are now available to jewelry and horological trade groups. The first kit covers the Swiss program; and the second—entitled "The Automatic Watch—Watch of the Future"—is now ready.

and to everyone...A Happy New Year

The WATCHMAKERS



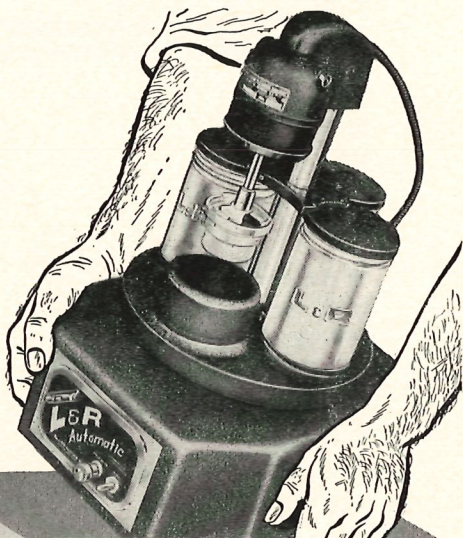
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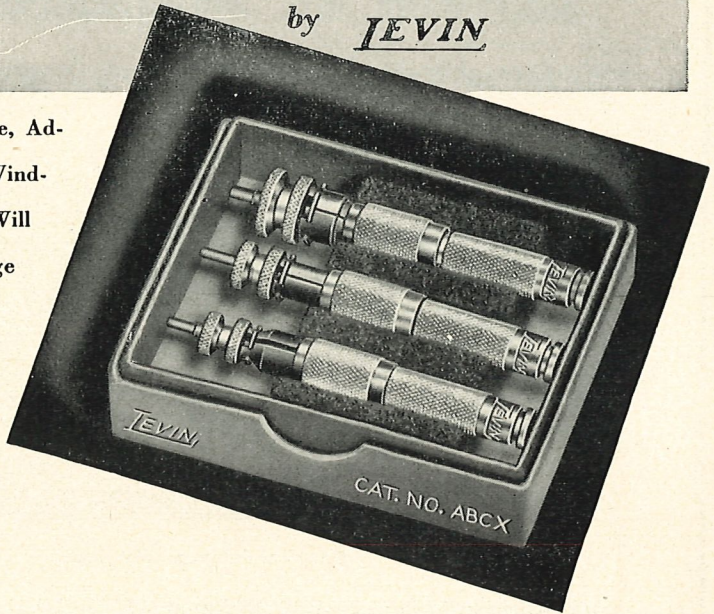
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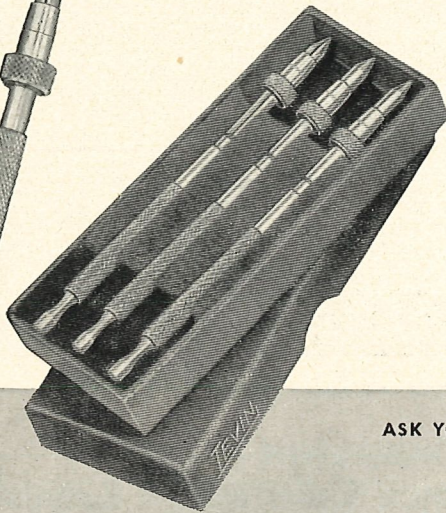
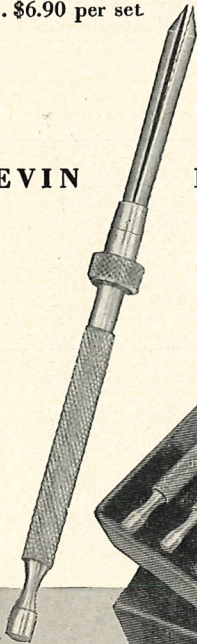
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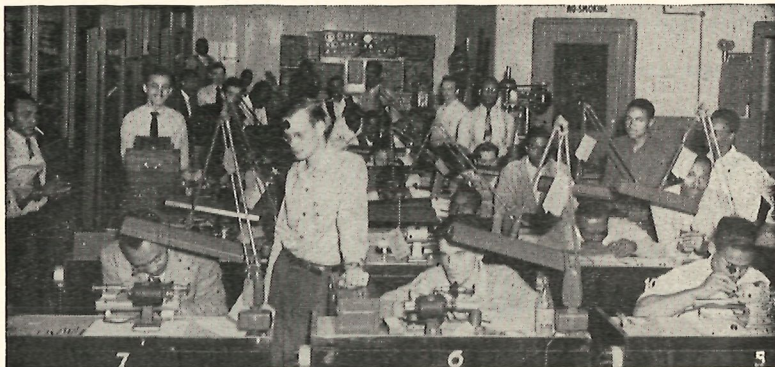
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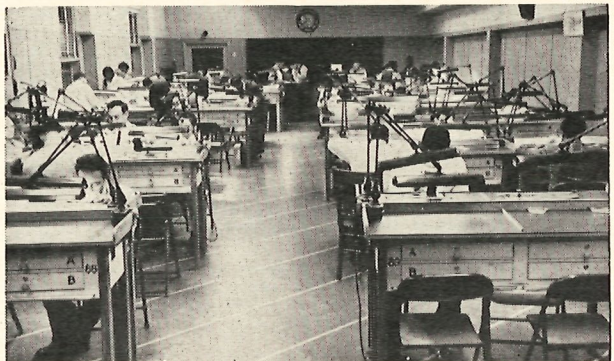


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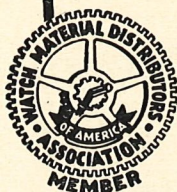
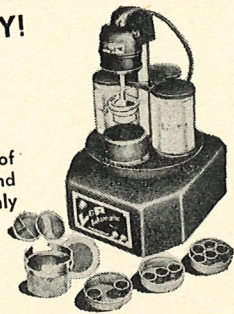
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JOURNAL

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DECEMBER 1949

Number 9

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All advertising material must be received before the 25th of the month preceding publication. Advertising rates will be sent on request.

TABLE OF CONTENTS



	Page
HISTORICAL	
The Yaseen Collection of Watches and Clocks.....	15
Purpose of the H. I. A.....	17
Joint Meeting Canadian Institute and H. I. A.....	22
"The Half Century Club".....	24
The December Cover Story.....	54
HOROLOGICAL NEWS	
Beehler Addresses Indianapolis Watchmakers.....	26
Houston (Texas) Guild Elects Officers.....	26
New Jersey Horos Hold Convention.....	30
Rhode Island Watchmakers Held Convention.....	32
Indiana State Board Held Annual Election.....	32
Pennsylvania Watchmakers Elect Officers.....	33
Midwest Chapter N. A. W. & C. C. Elect Officers.....	39
Fried Manual Adopted by Chicago Institute.....	47
EDUCATIONAL	
A Training Program for Apprentice Watchmakers.....	31
Your Questions Answered Here.....	37
More About "Oiling Center Staff".....	51
Terms Used in "Banking to Drop".....	52
GENERAL INTEREST	
Winners Announced in "Watch Inspection Time" Contest	20
How About That?.....	25
Report of JIC on "Watch Inspection Time".....	48
AMONG THE TRADE	
Hamilton Christmas Program.....	34
R. M. Kant Receives Industrial "Oscar".....	49
New Department Created by Elgin.....	49
World's Lightest Watch.....	50
Swiss Merchandising Coordinators Appointed.....	50
CLASSIFIED SECTION	
"AS THE PENDULUM SWINGS".....	57

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The subscription of the H. I. A. Journal, single copy, is 25 cents. It is mailed free to members of the Horological Institute of America. The subscription price to individual members of State Horological Associations and/or Guilds (Certification of membership MUST be made by Secretary), is \$2.00 per year, which includes Institute membership. The subscription price to all others is \$3.00 per year. Checks are to be made payable to: "The Horological Institute of America, Inc." and should be mailed to: "RALPH E. GOULD, Secretary, Washington 12, D. C.

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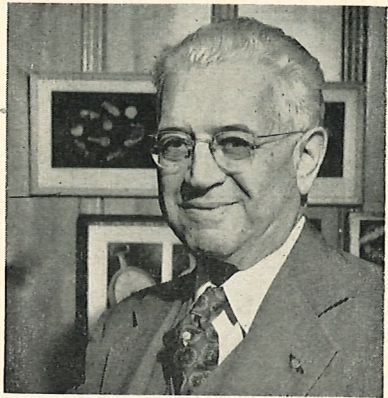
OUR NEW DALLAS ADDRESS IS 305½ S. AKARD ST., DALLAS 1, TEXAS

The Harry W. Yaseen Watch Collection

In scanning the watch collection of Harry W. Yaseen of Chicago Heights, Ill., one is impressed with the exquisite art and design that is reflected in many of the individual items of the collection.

Kings and courtiers of those early days of European watchmaking sought out the finest draftsmen and designers they could find to produce for them truly unique forms of watches. Countless hours of patient work went into the designing of many of these watches, plus the painstaking efforts of the craftsmen to produce them.

Only the wealthy could afford such artistically created watches, and ownership of such watches was a mark of distinction and prestige. Remember that each piece of the watch had to be made by hand. There was no "production line" in those days. Naturally, such rare works of art were cherished and were "handed down" to their relatives and friends.



Harry W. Yaseen

Porcelain Painting

Most of such watches were not good time-keepers, it is true, but became a part of their owner's "jewelry" display. Rare gems were used to adorn and embellish many of these artistic creations, and reflected the skill of the workmen and artists of those early centuries.

French, Italian, Swiss, Viennese, English and Spanish craftsmen combined to create many unusual timepieces, and, in Mr. Yaseen's collection, may be seen the fine workmanship of the various designers. They

seemed to have vied with each other to produce unusual timepieces.

Beautifully hand-painted figures on ivory, portraying in detail costumes of the centuries, fantastic and romantic figures, colorful and vivid, revealing historic incidents, thrill those who have seen Mr. Yaseen's collection.

Unusually odd-shaped watches are included in the Yaseen collection. Dutch shoe watches, lyre-shaped watches, beetle-shaped watches, lantern-shaped watches, and many other forms are included. Mr. Yaseen admits that many of his items are "nameless" and their history lost through the centuries. Each reflects, however, certain "periods" of design and nationality.

Medallion Watches

Watches were attached to medallions for queens and noble ladies, richly ornate and striking in color and gems. Various orna-

(EDITOR'S NOTE—This is the second of a series of articles on the collection of interesting timepieces owned by Harry W. Yaseen of Chicago Heights, Ill. The first article appeared in the November issue of the H. I. A. Journal, and other articles will appear in later issues.)

ments were attached to these medallion watches.

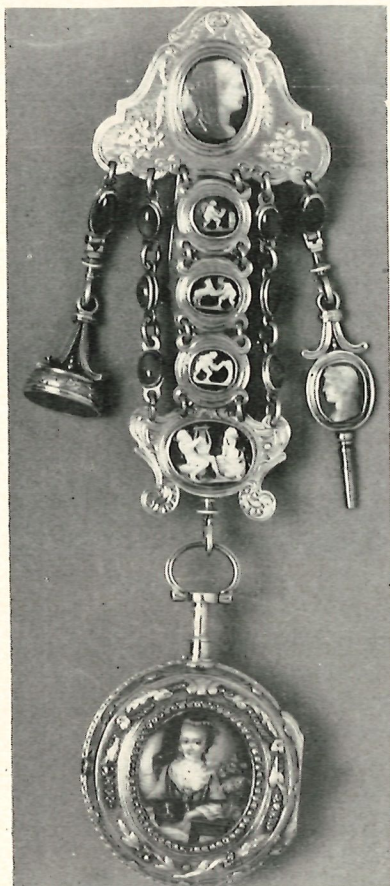


Fig. 1
MEDALLION WATCH
(Harry W. Yaseen Collection)

Fig. 1 shows one of these medallion watches. The movement was by Le Esquillon de Choudens. Note the hand-painted lady with her favorite dog on her lap on the outside of the case. The figures in the medallion part of the ensemble of the medallion, are cameos, undoubtedly of Italian or Sicilian workmanship. The fine jeweler's art or craftsmanship is reflected in this item of Mr. Yaseen's collection. Pearls form a border for the hand-painted figure.

Fig. 2 shows another of these hand-painted watches, with a soldier receiving a crown of laurel, as he holds his spear in his hand, having doffed his helmet, and

embraces the woman, who may be his wife or a goddess of war. The dog at his feet, however, suggests domesticity rather than symbolism, so she must be his wife.

This watch is accredited to Bovet, richly adorned with engraving work. It is definitely a "period" designed watch, with music plates, which strike the hours and plays a tune.

Another watch of French make prized by Mr. Yaseen, a 100-year-old key-winder, has an illustrated case, showing an irate husband discovering his wife with another man. Perhaps the original owner of the watch had it designed and made to remind him of the infidelity of his wife. Mr. Yaseen wouldn't know the real story behind the watch.



Fig. 2
HAND PAINTED ENAMELED CASE
(Harry W. Yaseen Collection)

Gold Coin Watch

Also illustrated in this article, Fig. 3, is perhaps the rarest of unique watches in the

(Turn to Page 38, Please)

The Purpose of the Horological Institute of America

EDITOR'S NOTE: *No doubt it will prove interesting and informative to our younger members to learn more about the men, many of whom have passed on, who were instrumental in forming the Horological Institute of America, and the motives which prompted its organization.*

The following article was published in the 1922 Year Book of the American National Retail Jewelers Association.



Shown above are the original founders of the Horological Institute of America. First row, left to right—Ferdinand T. Haschka, Mr. Zissinger; Mr. Freund, Edward A. Marsh, George W. Spier, first H.I.A. president; Alfred Noyes, and Alford G. Stein. Second row, left to right—William Manby, Samuel Swartchild, John J. Bowman, Edward H. Hufnagel and W. L. Jones. Third row, left to right—Mr. Povelsen, Henry W. Bearce, Unknown (?); Frederick Jennings, A. F. Beal and Albert T. Barrows. Fourth row, left to right—C. F. Kleinfelter, W. Colver Moore, Webb C. Ball, Paul Moore, Robert C. Nathan and Edwin C. Lilly.

Important Function of the Watchmaker

The World War I awakened interest in precision in timekeeping and focused attention upon the responsibility and the important function of the watchmaker in the social, industrial and economic world. It

emphasized, moreover, the increasing scarcity of competent watchmakers in America.

We are indebted to the watchmaker not only for precision in timekeeping, but for some of the most ingenious and most useful inventions. Unfortunately, during the past

several years, we have not sufficiently emphasized our professional side, nor kept alive by adequate educational methods an interest in horology commensurate with its importance.

Need of Sustained Interest in Horology

There are already worthy watchmaking schools and very capable watchmakers, but no organized effort had been made to standardize the curricula of the schools, to maintain *sustained* interest in the study of horology, to advance the interests of the competent watchmaker and the jeweler, to stimulate the ambitious beginner and to protect the public.

National Research Council Calls First Horological Conference

The unstabilized and unstandardized condition of the watchmaking profession in this country aroused the interest of the National Research Council, which called the first horological conference in Washington, D. C., May 19th and 20th, 1921, at which were represented every branch of the jewelry and watchmaking industry, the American National Retail Jewelers' Association, the Smithsonian Institution, the United States Bureau of Education, the United States Bureau of Standards, the Federal Board for Vocational Education and the trade and daily press.

Problems Discussed and Plans Made for Their Solution

At this memorable conference were discussed the technical requirements of competent watchmakers, the relation of manual training in public schools to watchmaking, the future of training watchmakers in America, the scarcity of competent watchmakers, the certification of watchmakers, means for stabilizing the watchmaking profession, the standardization of curricula in horological schools, and the relation of vocational education and rehabilitation work to watchmaking. A Ways and Means Committee was appointed for increasing interest

in watchmaking, also a committee on the feasibility of establishing a national horological institute.

Horological Institute of America Formally Established

A second conference was held in New York City July 26th and 27th, by the Organization Committee appointed at the first conference, and plans were formulated and a constitution and by-laws discussed.

The third conference at which plans were perfected, was held in Washington, D. C., October 20th and 21st, and the Horological Institute of America was formally established and an advisory council of twenty-four and presiding officers were elected.

Significant Resolution by the American National Retail Jewelers' Association

The American National Retail Jewelers' Association during its convention held in Buffalo, N. Y., adopted this significant resolution:

To supply our country with a sufficient number of competent and expert watchmakers is one of the great tasks and problems confronting not only the jeweler, but the people of America and the United States as a nation. We applaud the advent of the Horological Institute of America recently founded in Washington, D. C., recognize in its founding the beginning of a new era for horological advancement in our nation, pledge to it the full support of our association and hereby call upon all the jewelers of the country to give to it their most complete co-operation, moral and financial.

Linked Up with Powerful Allies with Executive Offices in Washington, D. C.

The Institute starts its career linked up with powerful allies, its advisory council including representatives of a number of government bureaus and scientific organizations. The Institute is most fortunate in this respect, for its work will thus be greatly facilitated and its prestige enhanced.

It should be made clear that the Horological

logical Institute of America is an unbiased, scientific body, free from all partisan influence of every kind, working in co-operation with the National Research Council and ready to give and to receive co-operation from all other organizations and individuals for the advancement of the science of horology in America. Its executive office is located in Washington, D. C., where it is in close touch with all the above mentioned government bodies.

Aims of the Institute—Certification

The Horological Institute of America aims to be of service to every branch of the industry and to individuals interested in any way in precision in timekeeping. The certification of watchmakers is only one of the Institute's functions. The Institute decided upon three grades of certificates, a first, a second and a third grade, in order to encourage certification and to make it available for as many applicants as possible.

The Horological Institute of America aims to encourage and stimulate the less experienced individual to strive for the higher grade of certificate, the acquisition of which will be to his own economic advantage.

Standardization and certification, it is hoped, will advance the professional standing of the watchmaker's vocation and make it more inviting to the intelligent youth of this country.

Examinations Held in Collaboration With the United States Bureau of Standards

Examinations for certificates will be prepared in collaboration with the United States Bureau of Standards, which will be utilized as the central examining agency. These examinations will test both practical skill and technical knowledge. Arrangements have been completed by which applicants, without regard to their geographical location, may be conveniently certified.

Co-operative Effort Needed

Your earnest co-operation and support are urgently solicited.

Every member of the Horological Institute of America has a voice in its administration and all members have equal voting powers.

The members themselves elect the Institute's governing body.

CONSTITUTION OF THE HOROLOGICAL INSTITUTE OF AMERICA

Preamble

One of the results of the numerous discoveries and achievements in the various branches of natural science, during the last half century has been the awakening of a greater consciousness and a deeper appreciation of the pervasive and ceaseless influence of time—as an important factor, affecting the activities of life. Consequently, the Science of Horology has come to be recognized as being of increased importance, and

Whereas: We realize that its importance calls for corresponding action, we desire to express our hearty willingness to aid in supplying this reasonable demand for increased and constant accuracy in time measurement, and, as an important means in the attainment of that end, we deem it wise and expedient to create an organization whose special object shall be to serve the American public, through the education and thorough training of suitable workmen in the manufacture, care and skillful repairing of time-keeping instruments, and

Whereas: The present serious scarcity of competent watch repairers, throughout the entire country, demands that active means be used in the endeavor to attract to this branch of useful employment and industry, young men and young women of high character and refined tastes, feeling that in this field of labor they can well serve the public, and also that they may thereby secure for themselves a liberal remuneration. To the attainment of this end—

Therefore Be It Resolved: That in response to the action of a conference of

(Turn to Page 41, Please)

Winners Announced in "Watch Inspection" Contest



Charles E. Richter's award-winning entry in The Watchmakers of Switzerland's "Watch Inspection Time Contest."

Twenty-four winners in the recent "Watch Inspection Time" contest, sponsored by the Watchmakers of Switzerland and the Jewelry Industry Council, have been announced.

The four "Grand Awards," each consisting of a beautiful Neuchatel clock, were given to: Charles E. Richter of Cincinnati, Ohio; Robert F. Frankenberg of Cornel,

Wis.; R. W. Meyer of Scottsburg, Neb.; and Harry W. Servey of Santa Barbara, Calif.

The twenty winners of "Awards of Merit" are:

Francis Van Riper of Muskegon, Mich.; M. P. Oppenheimer of Corapolis, Pa.; Abraham A. Brownstein of Ansonia, Conn.; Miriam Hildreth of Marysville, O.; Stuart



Prize-winning entry of Robert F. Frankenberg in The Watchmakers of Switzerland's "Watch Inspection Time Contest."



Entry of Harry W. Servey which won a Grand Award in the "Watch Inspection Time Contest" sponsored by The Watchmakers of Switzerland.

Goldberg of Lincoln, Neb.; Norman C. Lentz of Salisbury, N. C.; Glenn E. Dobson of Port Townsend, Wash.; R. T. Harris of St. Petersburg, Fla.; Harry S. Fuller of Auburn, Calif.; Alan J. Patterson of Sturgis, S. D.; John Ross of Albany, Ga.; Richard H. Rad of West New York, N. J.; Dewey H. Hesse of Portland, Mich.; Elmer E. Huber of Olympia, Wash.; John L. Kirkman of Anderson, Ind.; Henry R. Stifel of Ridgefield, N. J.; Frantz Law of Bluffton, Ind.; Arthur Peterson, of Wor-

chester, Mass.; Einar F. Heller of Hancock, Minn.; and C. W. Helm of Columbia, Tenn.

Members of the judges panel were: A. S. Rowe, of Indianapolis, president of the Horological Institute of America; Kenneth I. Van Cott, president of the American National Retail Jewelers Association; H. A. Goldberg, president, National Association of Credit Jewelers, and Fred Morey, president of the UHAA.



R. W. Meyer's prize winning window display in the "Watch Inspection Time Contest" sponsored by The Watchmakers of Switzerland.



Joint meeting of the Canadian Jewelers' Governors and Examining Board, with the H. I. A. Executive Board, Oct. 11, 1949, Gen. Brock Hotel, Niagara Falls, Canada.

H. I. A. Executive Committee Met Jointly With Canadian Jewelers Institute

The H. I. A. Executive Committee held an interesting joint meeting with the Canadian Jewelers Institute board of governors and board of examiners in Niagara Falls, Canada, on Oct. 11, to discuss common problems and conditions in the horological field. The meeting proved to be of unusual interest and tentative plans were considered for holding another similar meeting in Oct., 1950, in Detroit-Windsor.

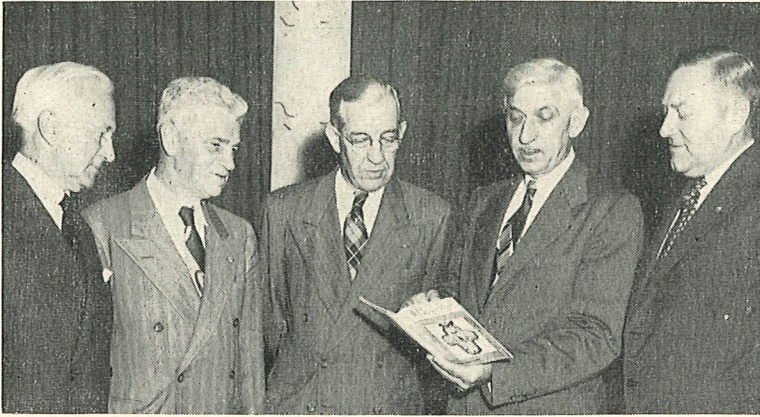
Prior to the joint meeting, the H. I. A. Executive Meeting was held at the General Brock Hotel, Niagara Falls, Canada. President A. S. Rowe presided. Those present were: President Rowe; Ralph E. Gould of Washington, D. C., executive secretary; George T. Gruen of Cincinnati, Ohio, treasurer; Forrest E. Peters of Washington, D. C., regional vice-president; Howard L. Beehler of Chebeague Island, Me., past president; John J. Bowman of Lancaster, Pa., chairman of the Educational Com-

mittee; Harry Henshel of Woodside, N. Y., Executive Committee member; and Paul K. Morgan of Cumberland, Md., Advisory Committee member.

The committee voted to certify conditionally three schools of watchmaking, Western Pennsylvania Horological Institute of Pittsburgh, Pa., Washington Technical School of Washington, D. C., and Chicago School of Watchmaking, Chicago, Ill.

Approval was given to holding the 1950 Annual Meeting of the H. I. A. in Washington, D. C., on May 15, and also to hold the 1951 Annual Meeting in Washington, D. C., "about the middle of May," to conform with the celebration of the 50th anniversary of the National Bureau of Standards.

Horace Bowman was named H. I. A. certification agent at the National Bureau of Standards to look after the Institute's in-



Officers attending: Canadian Jewelers' Institute, H. I. A. Joint Meeting—(left to right) M. T. Ellis, Pres., C. J. I.; Ralph E. Gould, Executive Secretary, H. I. A.; A. S. Rowe, Pres., H. I. A.; Howard L. Beehler, Past Pres., H. I. A.; Robt. E. Day, C. J. I., Board of Governors.

terests and watch testing, upon the retirement of Ralph E. Gould, as Chief of the Time Section, Dec. 31, 1949. Following his retirement from government service of over 31 years, Mr. Gould will devote his time as Executive Secretary of the Institute.

The committee voted to hold the next regular committee meeting in Cincinnati on Jan. 23, 1950.

The H. I. A. members met with the Canadian Jewelers Institute at luncheon and then held a joint meeting in the Rainbow Salon at the General Brock Hotel at 4 p. m.

President Rowe and President M. T. Ellis of the Canadian Jewelers Institute were joint chairmen of the conference. Mr. Rowe gave an outline of the H. I. A. Mr. Ellis reviewed the work of the C. J. I., which organization, he said, was patterned after the H. I. A. He pointed out, however, that the C. J. I. was endowed and supported by the Canadian Jewelers Association while the H. I. A., he said, was independent of any group.

Other speakers included Mr. Bowman, Mr. Beehler, Mr. Gruen, Mr. Morgan, Col. Henshel of the H. I. A., and N. J. Leach, bursar of the C. J. I., and H. V.

Wilkins of the Canadian board of examiners.

Discussions of methods of conducting examinations of watchmakers brought out many similarities in procedure. An exchange of correspondence for the mutual benefit of the two Institutes will be carried on.

Other representatives of the C. J. I. present were: R. D. Huddart, assistant bursar; Robert E. Day of Toronto, Robert Aell of Toronto, Adam Purves of Hamilton, Dudley Roden of Toronto, W. G. Reeve of Barrie, C. J. Showers of Toronto, and Howard Williams of Hamilton, all members of the Board of Governors.

Members of the Board of Examiners of the C. J. I. present were: A. Chetter of Hamilton, C. R. Keedwell, J. Peacock, Charles Raymond, E. Schoeni, H. V. Wilkins, William Jackson, all of Toronto; and C. K. Saalmans of Weston.

Also present were: Peter Meggs, editor of *Trader and Canadian Jeweler*; and R. H. Zelke, editor of *National*.

In the evening, members of the two Institutes and their wives met together for dinner and a social period following.

"The Half-Century Club"

Jes. I. Hansen, of Denver, Colo., qualifies for membership in "The Half-Century Club," having been engaged in watchmaking business for over 60 years.

Born in Schleswig Holstein, Germany, in 1871, he came to America in 1878, when his father became a farmer in Racine, Wis.

Mr. Hansen began his apprenticeship as a watchmaker on Nov. 1, 1889, under John Elkins. He also worked with many noted watchmakers, such as F. R. Cunningham. In 1901, he started to work for A. J. Stark & Company, one of the first watchmakers in Denver. Later he worked for the Boyd Park Jewelry Company of Denver.

Opens Own Shop

In 1910 Mr. Hansen entered the watchmaking business for himself in Denver, and has been in business forty years. His shop is now located in the Denver Theater Building.

Mr. Hansen was selected by Elgin Watch Company to design and make the first de-tent for a pocket chronometer. In 1897, he made a 16 size pocket chronometer at Hutchinson's in LaPorte, Ind.

Active in Association Work

He became interested in the advancement



Jes. I. Hansen

of better watchmaking and took an active lead in Colorado to develop better ethics and techniques. He has been a teacher of watchmaking for many years and a member of H. I. A.

Mr. Hansen has also taken an active part in many civic affairs, including church and fraternal work. He was the worshipful master of the oldest Masonic lodge in Colorado.

MATERIAL DISTRIBUTORS SCHEDULE JUNE MEETING

Tentative arrangements have been made for holding the annual conference of the Watch Material Distributors Association of America. The date has been set for June 7 and 8, 1950. The conference will be held in the LaSalle Hotel in Chicago.

In planning the meeting, H. Donald Richards of Philadelphia, executive secretary, has urged members to send in program suggestions in order to set up the conference and deal with pertinent problems con-

fronting the industry.

Further details of the June conference will be worked out and it is expected that it will be one of the most successful ever held by the organization.

In a recent bulletin sent to members of the Association, emphasis was laid upon distributors contacting manufacturers and importers frequently to let them know what they want to improve their business.

More and more manufacturers are producing watch material cabinets in the standard size, adopted by the Association, Mr. Richards announced in the bulletin.

How About That?

By H. W. SCHAEFER

Are time recording instruments responsible for our present civilization—or is civilization dependent on time instruments?

Historians discuss the question and seem to be agreed that our present day civilization could not exist without time measuring instruments.

What a mess it would be today, if we depended on the sun dial, which we now know to be different each day.

The sun makes its apparent daily journey, from east to west, in 24 hours. The earth is divided into 360 degrees, or meridians of longitude. Each meridian then represents 4 minutes of time.

An observation of the sun, in the same longitude, would not be the same tomorrow by 4 minutes, because the earth will have traveled one degree (in 24 hours) around the sun.

Today we have clocks and watches to measure this man-made division of time within 30 seconds a week.

However, it was not until 1884 that

these divisions of time were made, dividing the world into time zones, each 15 degrees apart and representing 1 hour of time. Each hour of 60 minutes, divided by 15, equals 4 minutes for each degree.

Thus was established Eastern, Central, Mountain and Western time, etc.

Certainly, time could not have become the exact figure in human relations which it occupies today without the ingenuity of man, and some have said that civilization could not exist as it is without time measuring instruments.

However, the discrepancy caused by the elliptical revolutions of the earth around the sun could not be compensated.

Science and astronomy have given to the present generation the knowledge of the workings of the heavenly bodies and today we know why the sun seems to come up in the east and set in the west.

We are enabled, through science and astronomy, to calculate the annual revolu-

(Turn to Page 43, Please)

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BEEHLER ADDRESSES INDIANAPOLIS WATCHMAKERS



More than 100 Indianapolis watchmakers attended the lecture of Howard L. Beehler, noted horologist, writer and instructor, in the Gold Room, Hotel Washington, September 16. Mr. A. S. Rowe, president of the H. I. A., and Paul Sheddric, president of the Watchmakers Association of Indiana, Inc., were present.

Houston Watchmakers Elect New Officers

At its November 8 meeting, the Houston (Texas) Guild re-elected H. Hodgson (Leon Gordon, Jewelers) president; and Date Simpson (L. Leschenger), treasurer.

The new officers elected for 1950 are: A. C. Henry, (Loftus Jewelry Co.) first vice-president; succeeding Joe Pinkston; Dren Duffy, (L. Leschenger), second vice-president, succeeding H. B. Neil; E. L. Brown (Percy L. Brown) secretary, succeeding J. P. O'Brien; H. B. Nail, (Dean, Houston Technical College), State Committeeman, succeeding E. L. Brown; A. T. Henry, (Montgomery Ward) H. G. Jones and J. C. Evans (Houston Technical College) Public Relations.

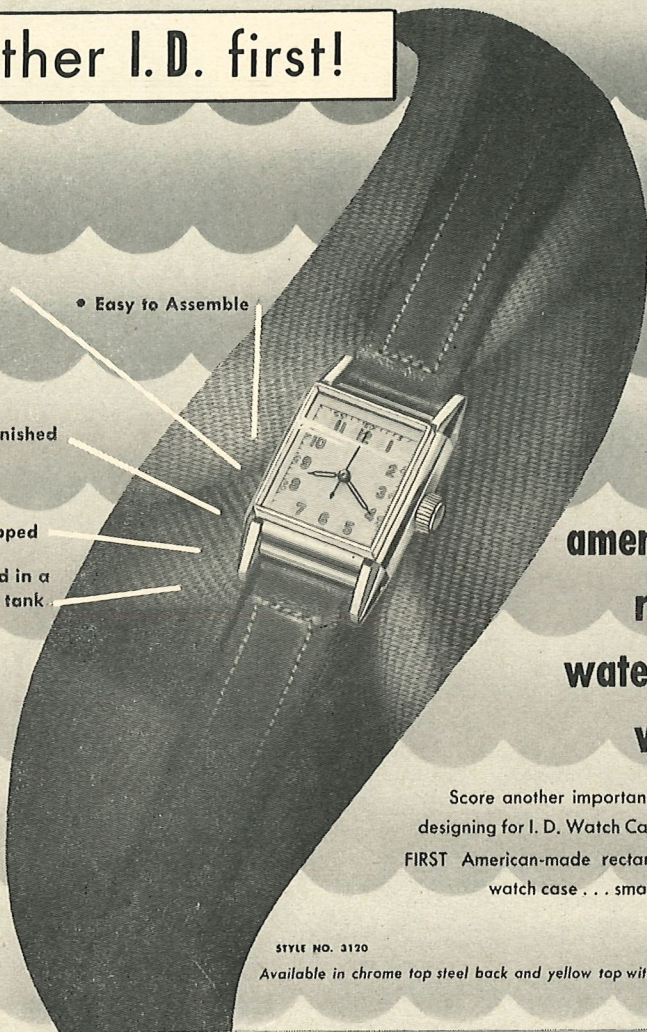
As the future plans of the organization call for enlarged activities, it was voted to change the name from The Texas Watchmakers Guild of Houston to The Horological Society of Houston and Harris County.

Following the election of officers and completion of business, a dinner was served in the dining room of the Y. M. C. A.

The Houston watchmakers have long been recognized as "live-wires" and have been fortunate in the wise selection of their officers, past and present, who have been sincere in their efforts to raise the standard of ethics and workmanship in their profession. Even greater achievements can be expected from their expanded program.

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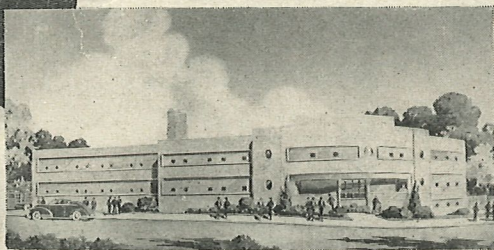


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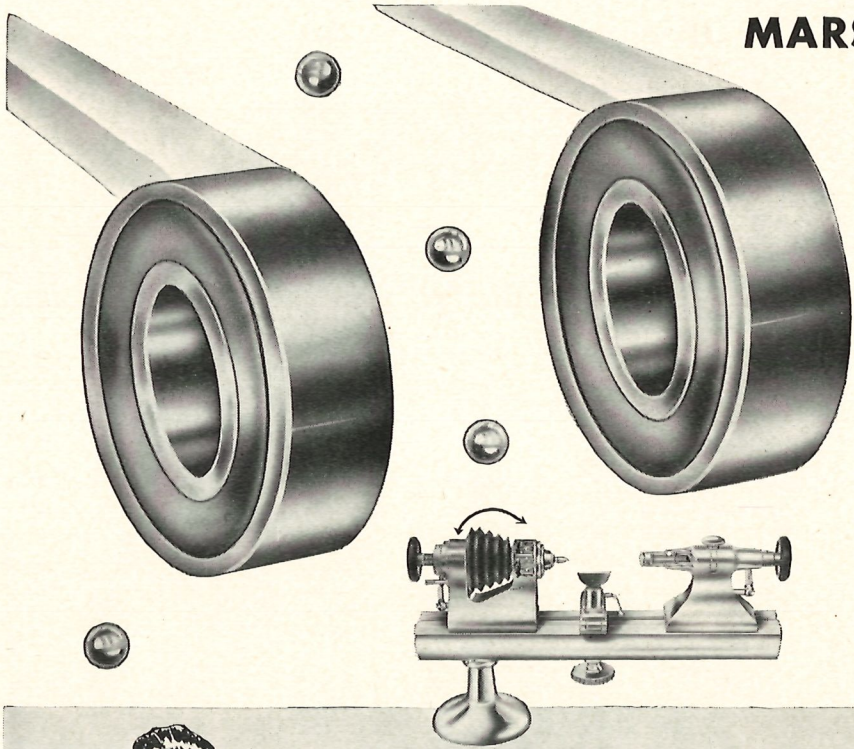
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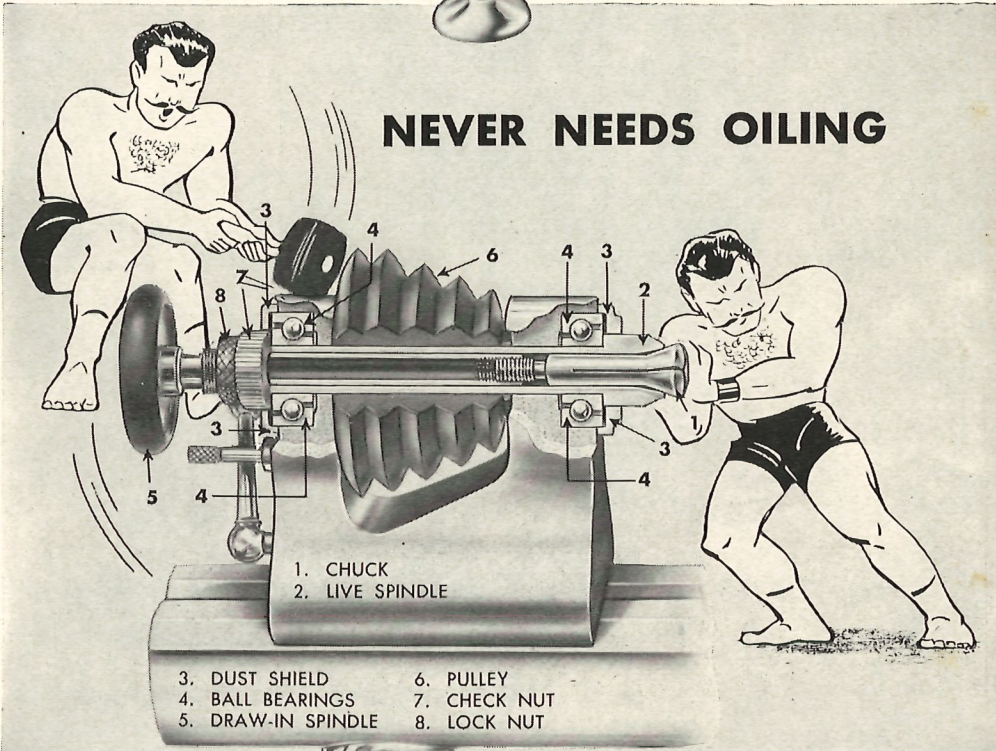
NEW YORK OFFICE: Joseph Dinstman, 580 Fifth Avenue; Telephone PL 7-4237
CHICAGO OFFICE: William Bari, 29 E. Madison Street

LOS ANGELES OFFICE: Dave Diamond, 915 Pershing Sq. Bldg.
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W. H. Samelius, Director, Elgin Watchmakers College.

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New Jersey Horos Held Successful Convention

The tenth annual convention of the Watchmakers' Association of New Jersey was held November 8 in the Ivanhoe in Irvington, N. J. It was a most successful event and one of the best attended conventions in the history of the Association.

A review of the past ten years' accomplishments of the Association was given by George Winton, Association historian, who pointed out the splendid progress made by the organization.

The principal address was given by Howard L. Beehler, past president of the Horological Institute of America, and dean of the Bulova School of Watchmaking, who gave an inspirational message.

At the convention, reports were given by Paul Stanoch of Jersey City, secretary; Robert Halper, of Newark, N. J., treasurer; and President Hayenga.

New officers were elected at the convention and installed at the close of the meeting.

Preceding the annual meeting, the Association held a colorful dinner-dance on Nov. 6, when past presidents of the Association

were honored, including George Doehrmann, Harry Van Laar, Hans Decker, Peter Bea, Andrew Stroehlein and L. H. Hayenga, the latter having served two terms. It was one of the gala events of the year.

Honorary members present were: Mr. Beehler, Charles H. Fetter, Louis Haimann and Benjamin Mellenhoff.

Members of the banquet and entertainment committee were: Eugene Jung, chairman; Joseph Shaloo, George Winton, Barney Carter, Ludwig Abeling, Joseph LaPlace, Charles Miller, Arthur Victor and Emil Haller, who "did things up brown" and arranged a good program.

ELGIN SALES

The Elgin National Watch Company has reported sales of \$18,211,100 for the 40-week period ending Oct. 8, 1949, as compared with \$18,354,116 for the same period in 1948. Net earnings for the period were \$869,232, equal to 4.775 per cent of sales, as against \$872,090, or 4.705 per cent in 1948. John G. Shennan, president, credited "operating efficiencies" for maintaining the company's earnings level. The directors of Elgin National Watch Company have declared a regular dividend of 15 cents per share, payable Dec. 21, 1949, to shareholders as of record Dec. 1.

STUDENT AND EXPERT

Both set roller jewels quickly with the Setsit tool—any size roller, off the balance wheel or on the balance wheel **WITH THE HAIRSPRING IN PLACE**. No part of the tool comes in contact with the cement or jewel; there is no time lost in cleaning off smeared cement or looking for lost jewels.

Buy it, try it and be relieved of the annoyance of setting roller jewels for all time!

Your money back if you don't like the Setsit way.

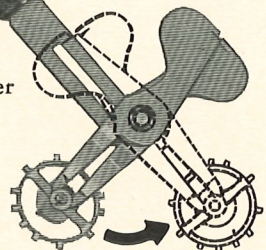
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A Training Program for Apprenticed Watchmakers

EDITOR'S NOTE: Those apprentices who expect to find satisfactory repairing and servicing of timepieces an easy profession to master are doomed to disappointment and unless this erroneous impression is corrected they will find themselves in the "Tinker" classification. It requires little skill or training to make a timepiece "tick"; but to make it "keep time" requires knowledge and skill. Successful servicing and repairing timepieces requires unusual mechanical aptitude; a thorough understanding of the theory of horology and its practical applications; long and exacting training in the skillful application of the various tools and equipment of the profession, before one is capable of satisfactorily restoring timepieces to their original time-keeping condition.

HALF-TIMING A WATCH

Friction is a necessary evil and horological engineers are constantly striving to reduce this evil to a minimum, thereby increasing the "impulse" power to the balance assembly, the timekeeping unit of the watch. The hairspring is the most important unit of the balance assembly. No other part of the watch is called upon to perform its functions with more accuracy and under greater handicaps, therefore, and it is of paramount importance that every effort be made to aid the hairspring in performing its important task.

Hairspring Back-up Train

Due to the "angle of draw" which the pallet-stones or jewels are "set" in the pallet-arms, the hairspring must overcome the power exerted by the mainspring on the escape-wheel, plus the unlocking friction of the lock, "run" or "slide." The hairspring, to unlock the escape-wheel tooth, must back-up the entire train before the escape wheel can advance. With so much depending on this delicate concentric coiled spring, every effort should be made to reduce excessive friction, thereby aiding the hairspring to perform its function with a minimum of effort.

Effective Test

The most effective check-up for locating excessive friction in the balance and fork assemblies is the running of the watch

without the hairspring. This is called the "Half-Time" test. If the pivots have the proper end and side "shakes"; the pallet "stones" or jewels the proper lock, "run" or "slide"; the roller jewel properly fitted to the fork-slot and correctly positioned in the impulse roller table, the watch will run without the hairspring in dial-up-dial down and pendant or stem up positions.

The critical test will be in the pendant or stem-up positions due to the increased side surface friction of the pivots on the hole-bearings; however, for practical purposes, the "half-time" tests should be confined to the better grade watches.

Note: Due to the "rebound" impulses which the roller jewel receives as it strikes the fork-horns, there will be a tendency to loosen the roller jewel and it is suggested that the "half-time" running tests be limited to one minute in each of the three positions. Caution: Be sure to check the roller jewel for "looseness" before staking on the hairspring for the "rating" tests.

Before attempting the "half-time" test the "banking to drop" check-up should be applied.

Different Types of Bankings

Generally speaking, the function of the bankings are to stop the lateral travel of the fork after lock. Specifically the bankings regulate (a) the distance the locking face of the pallet stone "slides" or "runs"

(Turn to Page 35, Please)

R. I. Watchmakers Held Successful Meeting

The regular monthly meeting of the Rhode Island Watchmakers Association was held at the Sheraton-Biltmore Hotel, Providence, R. I., on Wednesday evening, November 3, 1949, at 8:30 P. M.

The meeting was very well attended with a large number of members present. President John P. Clinton presided. The regular order of business was followed.

The greater part of the evening was devoted to the answering of technical questions submitted by the members. The questions were answered by members of the Technical Committee composed of Mr. H. E. Pease, Mr. A. Szwec, Mr. C. W. Logan, Mr. A. A. Fournier, and Mr. C. Divet, with the other members taking an active part in the discussion of all questions.

The committee reported that they have planned a very interesting program for the fall and winter months.

It was also announced that a class in engraving will be started soon if enough members show an interest in it.

The report of the publicity committee, composed of Mr. M. J. Unger and Mr.

E. J. Gordon, stated that they had written Mr. Stuart O. Hale of the Providence Journal-Bulletin considering the possibility of preparing a Sunday feature article with a historical slant describing the changes in types and repair procedures of timepieces; hand-cleaning vs. machine cleaning of parts; definition of terms, such as "What is a jewel?" 18,000 beats per hour, etc.; advice on care of timepieces; defrauding the public; yarns from some of the old "boys," etc. The Association would assist in the preparation of such an article.

The next regular meeting will be held on Wednesday, December 7, 1949.

The officers and Executive Board of the Rhode Island Watchmakers Association, an H. I. A. affiliate, are: Officers, John P. Clinton, president; John Caliri, vice-president; William M. Houston, 2nd vice-president; Lora R. Clemence, treasurer; Arthur C. McLaughlin, assistant secretary; Executive Board: Joseph H. Coutu, chairman; Lee J. Abish, Edward V. Gavin, Thomas B. Gray, Samuel Kopeck, Leroy M. Landry and Hamilton E. Pease.

Indiana State Board Held Annual Election

The Indiana State Board of Examiners in Watch Repairing held their annual meeting in their offices, 508 State Life Building, Indianapolis, November 21, 1949.

The following officers were elected for 1950: President, A. S. Rowe, Indianapolis; vice-president, Raymond B. Medlock, Clinton; secretary, Harold K. Calvert, Indianapolis. Other members of the board are: Fred H. Damm, Evansville; J. L. Hunnicut, Rockville; Addison Harris, Richmond.

Indiana secured its watchmakers' licensing law in 1939.

48 YEARS OF EXPERIENCE

In Supplying the Needs of the Jewelers
in the Mid-Central States with

Genuine American-Swiss

**WATCH MATERIALS — TOOLS
JEWELERS' SUPPLIES**

Is your guarantee of prompt
mail order service.

One-Day Service on Odd-Shaped Crystals.

HOFFMAN AND CO., INC.

305 State Life Bldg., Indianapolis 4, Ind.

"Indiana's Oldest Watch Material House"

Pennsylvania Watchmakers Association Elects Officers

At a recent meeting of the Pittsburgh Guild, the following officers and directors for 1950 were elected: President, George Niesslein, Pittsburgh; Vice-President, August K. Schran, Sharpsburg; Treasurer, Virgil Petrocelli, Pittsburgh; Secretary, Ernest Schreiber, Carnegie; Technical Adviser, Joseph Biemel, Carnegie. Directors: (3 years) Andrew Hammer and H. A. Perkins, Pittsburgh; (2 years) Joseph Biemel, Pittsburgh, and John Franz, Carnegie; (1 year) Phil. Cyminski, Pittsburgh, and Joe Frye, Trafford.

The officers and members of the Pittsburgh Guild are justly proud of their record of achievement during the past year when over 100 new members were added to their roster.

The program committee has done a most commendable job in providing interesting and educational discussions on practical servicing and repairing of timepieces, supplemented by technical sound films and talks by outstanding watchmakers, which accounts for the ever increasing attendance at their meetings.

The social season for which the group is justly famed surpassed all previous achievements and was responsible, in a great measure, for the genuine good fellowship existing among its members. The picnic last summer in beautiful West View Park will long be remembered by more than 550 members, their families and friends, who attended. The Corn Roast, September 11, at which over 250 attended, climaxed the season's outdoor entertainment.

The activities outlined by the program committee for 1950 promise to surpass in interest, education, membership and entertainment those of previous years.

Copy aimed at educating the public concerning the value of features found only in jeweled-lever watch movements will highlight the new series of advertisements by the Watchmakers of Switzerland, scheduled to begin in the July consumer magazines.

THE CHICAGO INSTITUTE OF WATCHMAKING

Invites you to write for our latest booklet "H" describing the courses and shops, and containing some pictures and letters from a few of the many satisfied graduates and employers who can truly explain our successful plan of sound training—Accredited by H. I. A. and U. H. A. A.

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GRANDFATHER CLOCK MOVEMENTS

Imported "Enfield" Quarter Hour

Westminster Chimes on Rods

GRANDFATHER CLOCK SHOP

877 Michigan Avenue

Buffalo 3, New York

Hamilton's Christmas Advertising Planned

Hamilton Watch Company's advertising campaign to stimulate Christmas sales again features "Peggy and Jim," but they will "come to life" this year on television. Two 5-minute TV films are scheduled over 28 television stations in sixteen marketing areas for approximately eight million viewers.



Hamilton's "To Jim"—"To Peggy" Christmas theme, which attracted such favorable consumer attention in 1940-41-'48 will be televised three times a week on 26 television stations, beginning November 21 through December 16.

A real-life version of Hamilton's "To Peggy" and "To Jim" Christmas advertisements is scheduled to appear on television during November and December. Two five-minute films, featuring Harvey Stevens and Keanne Sheppard as Jim and Peggy, will be seen alternately three times per week for four weeks in 16 marketing areas over 28 television stations. There are over 2,000,000 TV sets within these 16 marketing areas totaling approximately 8,000,000 viewers.

"Jim" will be portrayed as Harvey Stevens, talented star of "South Pacific," current Broadway hit show. Jeanne Sheppard is cast as "Peggy."

"Jim" and "Peggy" will also appear in magazine advertisements in 13 of America's most widely read publications, with a total circulation of 28 million readers.

Topping off Hamilton's 1949 advertising program will be its annual New Year's Eve telecast from Times Square. The show will feature Paul Winchell and Jerry Mahoney, ventriloquist, who will assist "Peggy" and "Jim" in interviewing some of the merry-makers in Times Square.

The climax of show will be at midnight when TV cameras picture the descending lighting ball on the Times Building, when "Peggy" and "Jim" will lead the crowd in singing "Auld Lang Syne."

Hamilton Reports Quarter Earnings

A recent financial report of the Hamilton Watch Company for the third quarter, 1949, showed a net income of \$458,135.50, an increase of \$208,159.67 over same period in 1948. Earnings per share for the third quarter, 1949, were \$13.13 for preferred against \$7.16 for same period in 1948; common was \$1.09 against \$.56 in 1948.

HEEL-ESCAPE TOOTH—The tip end of the escape tooth lifting plane. The "let-off" corner of the tooth.

BEEHLER SCHOOL OF WATCHMAKING CHEBEAGUE ISLAND, MAINE

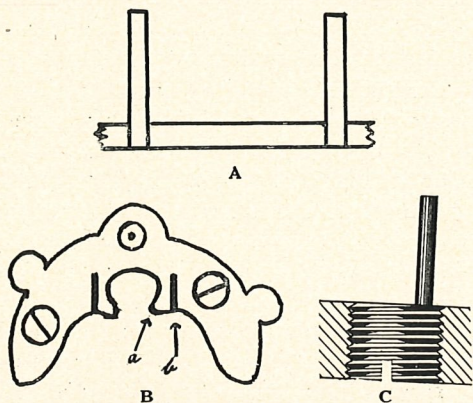
Now has a few vacancies in their Watch Repairing and Advanced Watchmaking Courses. Serious students will find the Beehler School of Watchmaking ideally situated for successful study.

Bulova School of Watchmaking Training Manuals and Training Films Used

Approved for G.I. Training
Write for Further Information

HALF-TIMING A WATCH
(Continued from Page 31)

down the face of the escape tooth after actual or "drop-lock." (b) The distance between the roller jewel and fork-slot corners after "drop-lock." (c) The distance between guard pin or "finger" and the edge of the guard roller.



There are three general types of "banking" (a) stationary; (b) Pallet Bridge (c) Eccentric Screw. Due to the accuracy which modern precision machines produce escape wheels, type a and b bankings are generally used in small watches; however, type "c" is still used in larger watches.

It is suggested that the apprentice use a 16s, 17j or better grade watch for the "banking to drop" demonstration as a clearer view of the escapement and balance assembly action is possible.

Procedure

(1) Let down mainspring. (2) Remove balance assembly and fork. (3) Oil train. (4) Wind mainspring and let train run down, check train-freedom (escape wheel should back up). (5) Check fork and guard-pin or "finger" for alinement. (6) Replace fork and check end and side-shake of arbor pivots. Oil. (7) Give mainspring about four "turns" with bench key.

Banking to Drop

1. (a) Place fork against bank "b" (Fig. 1) Angle of draw will hold fork against "bank." (No. 5—Fig. 1) With

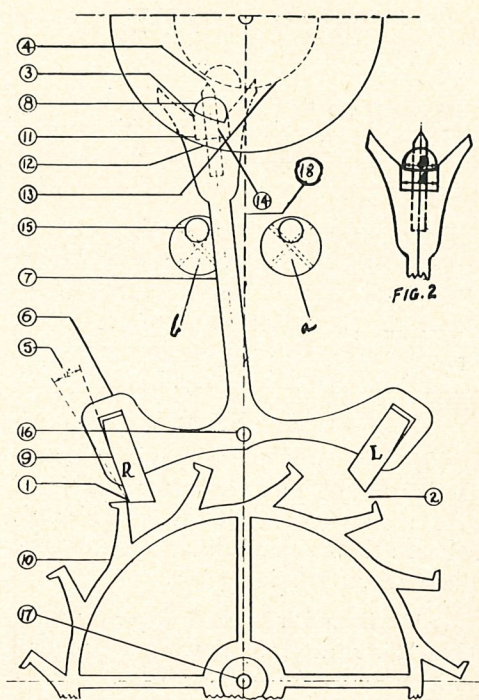


FIG. 1

1, drop-lock; 2, drop; 3, jewel pin or corner freedom; 4, guard-pin shake; 5, draft or draw; 6, pallet arm; 7, lever; 8, jewel pin or roller jewel; 9, pallet jewels or "stones"; 10, escape wheel; 11, fork slot; 12, impulse roller table; 13, safety roller table; 14, guard pin or "finger"; 15, banking screw pins; 16, pallet arbor; 17, escape pinion; 18, line of centers.

screw driver, turn "bank" 1-a, in to line of center. (c) Place fork against "bank" 1-a (d) slowly turn bank 1-a out, closely observing the "lifting" action of the escape wheel tooth, until the "lift" has been completed and the tooth "drops" on the locking stone. (e) Repeat the above procedure using banking "a."

(2) The escapement is now banked to drop (without "run" or "slide"). (a) With a pointed piece of pegwood, move the fork back and until the escape wheel has made a complete revolution; carefully observing if the "lock" on both pallet stones are equal. (No. 1—Fig. 1) and also if the "drop" space between the let-off corner of the pallet stone and heel of the escape teeth are equal on the "R" & "L" sides (No. 2—Fig. 1) Note: The above check

(Continued on Next Page)

HALF-TIMING A WATCH
(Continued from Page 35)

will "show-up" any long teeth in the escape wheel. In event there is a long tooth "open" the bankings until this tooth is "freed." (Always "bank" to the long tooth.)

If the "drop-locks" are equal, the "drops" equal, the banking pins the same distance from the "line of center" the fork and guard-pin or finger in alinement with the line of center, you can consider the escapement is "Banked to Drop."

Remove Hairspring

(3) The next procedure is to remove the hairspring from the balance. This will give a clearer view of the related action between the fork and the balance assembly. Place movement in holder.

(a) Oil and replace balance assembly, (less hair spring) in watch and anchor in position with the balance cock.

(b) With your left thumb, slowly turn the balance towards you until the roller jewel and fork are on the line of center with the balance pivots, pallet arbor and escape wheel pivots. The roller or "jewel-



FIG. 3
Steel "shake" testing "feeler."

pin" should have completely entered the fork slot (Fig. 2).

(c) Holding the balance wheel securely in this position, with a small "feeler" (Fig. 3) move the fork back and forth, testing the "shake" between the sides of the fork-slot and the roller jewel. Note: This "shake" or clearance should be just perceptible. By actual blue print measurements this roller jewel-fork slot clearance should be .02-.03 m/m. If the roller jewel or jewel pin is too small, loss of "impulse" power to the balance assembly will result in "poor motion." If too large, would not enter the fork-slot or would "bind," preventing "impulse" from reaching the balance assembly.

(4) *Corner Freedom or Jewel Pin "Shake"*

After completing the roller jewel "freedom" test, continue to turn the balance wheel towards you until (a) the instant the "lift" is completed (tooth "drops" on locking stone); (b) hold balance in this position, and with the small "feeler" (Fig. 3) gently press the fork against the roller jewel, carefully noticing the degree of "shake" (distance between the slot corner, and the roller jewel); (c) reverse the direction of the balance and repeat this same procedure at the opposite fork-slot corner. Note: The "shakes" or clearances on both corners of the fork-slot must be equal. Alternate test: As the fork is moved against the roller jewel, (see a-b-c above) with a double eye-glass, closely observe the distance the locking face of the pallet stone is moved up the locking-face of the escape tooth by the "feeler" until the fork-slot corner "strikes" the roller jewel. Caution: Under no condition should the clearance distance between the fork-slot corner and the roller jewel permit the locked stone to move up the locking face of the escape tooth more than one-half its "drop-locking" space. One-fourth distance is preferred.

(5) *Guard Pin, Its Function.*

The purpose of the "guard-pin" or "finger" is to prevent any "unnatural" unlocking of the pallet stones. A guard pin or finger of the correct length and properly positioned, assures continuous running of a watch under normal conditions of wear, slight jolts, or jars, etc. The end of the guard finger contacts the edge of the safety roller table in event of a sudden jolt or jar, arresting the premature upward travel of the locking pallet stone before it reaches the unlocking position. The "angle of draw" instantly returns the fork to the bankings and in position to receive the roller jewel at the proper time. However, should the guard-finger be too short or positioned above or below the edge of the guard roller table, its safety

(Turn to Page 52, Please)

Your Questions Answered Here

By "THE PROFESSOR"

EDITOR'S NOTE: A nationally renowned professor—who prefers to remain anonymous—has consented to answer questions from our readers pertaining to the science of horology and its various practical applications in the field of watch repair. Simply address your questions to the editor, H. I. A. Journal, 921 State Life Building, Indianapolis 4, Indiana. It will be our pleasant duty to forward all questions received to "The Professor" for a prompt reply and publishing in these columns every month.

Pallet Stones on Angle

Dear "Professor":

I have been puzzled with the following question and will appreciate your reply:

Why are the locking faces of the stone placed at a slant? M. M. A.

Answer:

The locking faces of pallet stones in the lever escapement are "placed at a slant" to obtain the function known as draw, sometimes called "draft." This, after lock has occurred (locking or preventing the escape-wheel, at each beat, from moving forward until the next unlocking occurs), draws or pulls the pallet down toward the center of the escape wheel until the fork comes to rest against a banking. The fork is then held in position by the force called draw, for the roller jewel to enter the slot for the next unlocking of the escapement. Without this, the guard-pin or guard-point would be free to come into contact with the moving roller-edge sometimes, which would make friction that would interfere with the free action of the balance, hence with good time-keeping.

"THE PROFESSOR."

Time Between Cleanings

Dear "Professor":

Will you please give me your opinion in detail on the length of time that a railroad watch should be cleaned and oiled, also condition of oil after approximately eighteen months. G. W. I.

Answer:

About our "opinion in detail on the length of time that a railroad watch should be cleaned and oiled; also condition of oil after approximately 18 months," let us say first that a watch should be re-cleaned and oiled whenever it is found that the oil has become thickened and viscous; which usually begins in about 12 months from the last time the watch was cleaned and oiled. By about 18 months, the gumming of the oil has usually gone so far that the timekeeping of the watch is seriously affected, and some parts may be running practically without lubrication, and be suffering more or less wear as a result. Along with the thickening of the oil always goes more or less contamination of it by dust and other foreign matter that gets into the movement. The occupation of the wearer of a watch has a good deal to do with this. To play safe, with a watch of which fine timekeeping is required, like a railroad watch, it is generally advisable to clean and oil it about once per year.

"THE PROFESSOR."

Repairs of Clock Spring Barrel

Dear "Professor":

I have a problem I would like for you to help me solve—it is, where can I get a three-inch spring barrel? or have one repaired? There is no name on this clock and it has the teeth chewed off for about one inch. This is a special barrel for a time clock. If

(Turn to Page 39, Please)

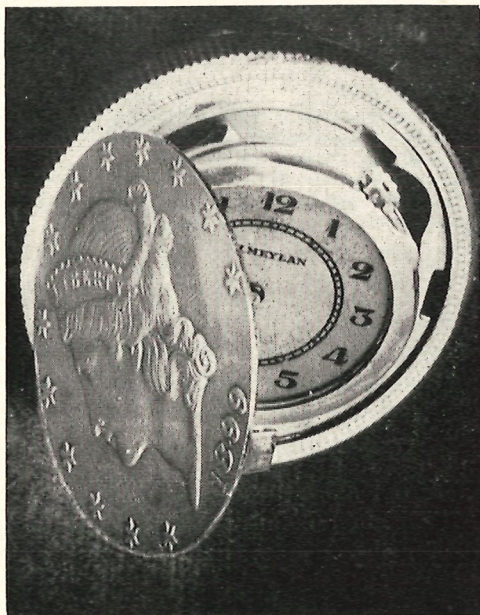


Fig. 3
GOLD COIN WATCH
(Harry W. Yaseen Collection)

Yaseen collection, not antique, it is true, for it is definitely "dated" by the twenty-dollar gold piece which forms the case — a coin dated "1899." The movement bears the name of "Meylan."

Those who have seen this \$20-dollar

gold-piece watch have marvelled at the skilled craftsmanship to produce it, for the head of "Miss Liberty" with the thirteen stars surrounding the head, has been turned from one coin and forms the front of the case, and the movement has been inserted into the remaining part of the coin. Probably no other similarly made watch exists today.

Beetle-Watches

Fig. 4 shows three "beetle-watches." The center watch is pictured with the wings raised to permit a view of the dial. Pressure on a small button causes the wings to raise. All three are excellent specimens of rare watches. Each could tell a romantic story if it could talk. Mr. Yaseen says that these watches are "nameless" watches, but they, too, reflect the jeweler's and watch-makers' skill of their day.

These "beetle-watches" are of unusual construction, combining fine colorful enamel work with precious-jewel insetting, giving them unusual brilliancy. The designing followed the "pattern of Nature" in actual anatomical make-up, plus a jeweler's "dream" of the acme in ornamentation. The reproductions, of course, fail to give the actual sense of appreciation which would come from being able to view them in Mr. Yaseen's collection.

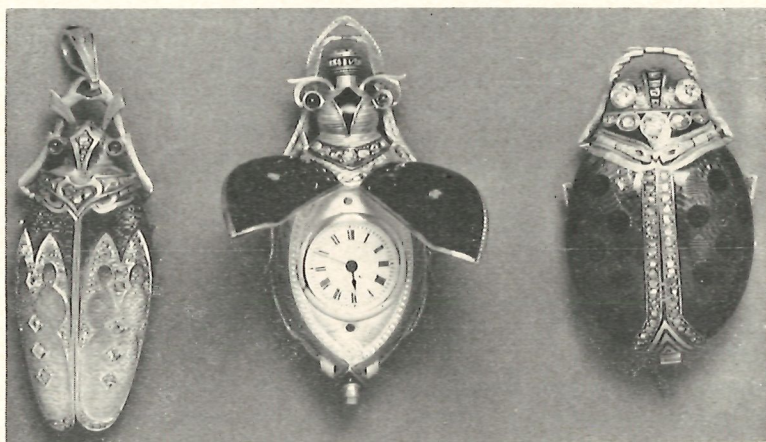


Fig. 4
BEETLE-WATCHES
(Harry W. Yaseen Collection)

Those who have seen these, as well as other items in Mr. Yaseen's unusual collection, have marvelled over the intricate design detail of these "beetle-watches." With the "wings" raised to show the dials, the watches resemble a "beetle" ready to "take off."

The cost of these watches must have been very great, for each was undoubtedly a special "commissioned" job, given by some emperor, or titled noble, who wanted to "impress" his fellow-beings by displaying his timepiece. The chances are that few of the wearers of such ornamented watches were ever able to tell accurate time, as compared with present-day precision watches, costing a mere fraction of what these "beetle-watches" cost their owners.

(To be continued in the January Issue of the H. I. A. Journal)

Midwest Chapter of the National Association of Watch and Clock Collectors Elects Officers

At a meeting held at the Chapter's permanent quarters in the Chicago Institute of Watchmaking, 6 East Lake Street, Chicago, Illinois, on November 15, 1949, the following officers were elected for the ensuing year:

Harry W. Yaseen, noted collector and jeweler, Honorary President.

Francis Clamitz, Chicago attorney, President.

Professor Richard H. Cole, Northwestern University, First Vice-President.

Paul Leeds, Director of the Chicago Institute of Watchmaking, Secretary.

James A. McKee, Technical Editor of National Jewelers Magazine, Treasurer.

YOUR QUESTIONS ANSWERED (Continued from page 37)

you can give me any information, I would greatly appreciate it. I thank you.

G. M. B.

Answer:

Since you are not able to tell us the manufacturer's name, of the clock for which you wish to obtain a new mainspring barrel, we cannot advise you exactly where to write for it. Will say, however, that watchman's or employee's time-recording clocks are made at present by Simplex Time Recorder Co., 377 Broadway, New York 13, N. Y.; Chicago Watchclock Co., 1526 Wabash Avenue, Chicago 5, Ill.; O. B. McClintock Co., Minneapolis, Minn.; and Howard Clock Sales & Service Co., 132 W. Broadway, New York 13, N. Y.; and if you'd send a sketch with dimensions of the damaged barrel, to these firms, there is a chance that one of them might happen to be the maker and able to furnish you with a barrel for your clock. For quotation on repairing the barrel by restoring the stripped teeth, we suggest: Lynn Clock Service, Waterbury, Conn.; Gem Clock Service, 1344 W. Division St., Chicago 2, Ill.; A. Bornand, Inc., Pelham, N. Y.; and J. E. Coleman, 64 Arcade, Nashville, Tenn.

"THE PROFESSOR."

Dear "Professor":

I have in my repair department, what I think to be a French or German made eight-day clock. With no markings or manufacturer's name. This is minus an hour wheel.

Please suggest a reliable company who can make this hour wheel without a sample, other than the movement. Gratefully.

F. D. K.

Repair of Foreign Clocks

Answer:

We suggest: Lynn Clock Service, Waterbury, Conn.; Gem Clock Service, 1344

(Continued on Next Page)

YOUR QUESTIONS ANSWERED
(Continued from Page 39)

W. Division St., Chicago 2, Ill.; A. Bor-
nand, Inc., Pelham, N. Y.; and J. E. Cole-
man, 64 Arcade, Nashville, Tenn.

"THE PROFESSOR."

Hamilton Wrist Watch

Dear "Professor":

I have a question that has been bothering
me sometime.

Can you tell me when Hamilton Watch
Company first made a 21 jewel wrist
watch.

I would like to know the year and ap-
proximate numbers, if possible.

E. C. W.

Answer:

About when the Hamilton Watch Co.
first made a 21-jewel wrist watch, we sug-
gest you write that company, addressed,
Lancaster, Pa., for the information, which
would save time in getting the data, since
we would have to write them for it, then
write you what they reply. The answer
would have to be obtained from the firm's
production records, which we do not have
in the H. I. A. Journal office.

"THE PROFESSOR."

Oil for Complicated Watches

Dear "Professor":

We have enough faith in your horologi-
cal knowledge to ask, "What type of lubri-
cant is best to use in oiling the various lev-
ers in chronographs and stop-watches?"

R. B. K.

Answer:

The lubricant to use for the mechanism
of chronographs and stop-watches is any
good watch oil. There is no special type of
oil required for this use.

"THE PROFESSOR."

Age of Verge Escapement Watch

Dear "Professor":

I have a watch I would like to know if it
has any value. It is approximately 17½ L.
Verge escap.—Fusee barrel and chain, fancy
filigree guard over balance. Regulator
works with key. Name on dial "LECOQ"
and A. VIESSIOX—same names on upper
plate. On lower plate G. CHORARD
#234.

Can you give me approx. age of watch
and the name of the maker? S. M.

(Turn to Page 44, Please)

Bowman Technical School

Lancaster, Pennsylvania



John J. Bowman, Director

Sixty-two years' experience
in training successful Watchmakers, En-
gravers, Jewelers.

Graduates pass Certified Master Watch-
maker tests, H. I. of A. or any state Board
examination.

Write for catalog.

Temporarily, applicants are on waiting list, until "Jam"
lessens, which we hope will be soon.

PURPOSE OF H. I. A.
(Continued from Page 19)

watchmakers, and others, called by the National Research Council, and held in the City of Washington, D. C., on May 19-20, 1921, we present, for consideration in the forming of a governing basis of a national organization, the following draft of a constitution and by-laws.

Anyone interested in timekeeping or timepieces in any way may be admitted to membership.

The constitution and by-laws, describing in detail the purpose and function of the Horological Institute of America will be found on the following pages.

CONSTITUTION

Article 1—Name

This organization shall be called "Horological Institute of America."

Article 2—Objects

The objects of this organization shall be:

(a) To demonstrate and emphasize the importance and value of a thorough knowledge of the Science of Horology.

(b) To formulate a course of study and practice in the higher branches of horological knowledge.

(c) To develop standards for horological schools and to co-operate for their betterment.

(d) To establish a system of varying attainments for watch and clock makers and to issue graded certificates to such applicants as shall, through careful examination, demonstrate their worthiness to receive them.

(e) To confer "Honorary Degrees" in recognition of individual attainments in horological discovery, science or practice.

(f) To encourage, in all suitable ways, young men and young women to adopt horological industry as their life work, or profession.

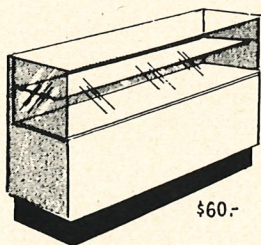
(g) To endeavor, by the employment of all proper means, to elevate and dignify the art, science and practice of horology; to the end that persons of high aims and worthy character may realize that through their choice of that profession they may worthily serve their fellow men.

(h) To employ all right and suitable means to secure for the science itself, and for its professors, instructors and students, the respect and dignity which appropriately belong to them, and to which they are therefore justly entitled.

(i) To serve as the appropriate center for the reception and diffusion of scientific information relating to all horological matters—through publication of articles of informing or instructive character.

(j) To co-operate with individuals and with other organizations, in sincere endeavor

(Turn to Page 42, Please)



No. 50
Half Panel Show Case. Length 70"; Height 39"; Depth 18". 16" glass front and sides, mirror back sliding doors, 1 glass shelf, open storage space in back. Also available in 12" front and side glass.

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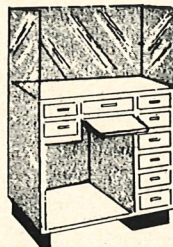
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COMPANY**

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Phone: CAnal 6-8074



No. 401A
Watchmaker's Bench (back view). Length 40"; Height 39"; Depth 20"; with 9 drawers and pull-out frame for catch-all. \$60.-

No. 401B
Also available with 24" high glass enclosure around upper front and sides. \$75.-

PURPOSE OF H. I. A.
(Continued from Page 41)

ors to advance the interests of horological science and practice, and in the work of collecting interesting and historical timepieces and horological literature.

Article 3—Location

The Institute shall have its executive office in the city of Washington, D. C., and will co-operate with the National Research Council, and other organizations in the development of the profession.

Article 4—Membership

Membership in the Horological Institute of America shall be of five kinds:

- (a) Active, \$3 per year.
- (b) Sustaining, \$10 per year.
- (c) Life, \$100.
- (d) Patron, \$1,000.
- (e) Honorary (conferred).

Any person of good character may become a member if recommended for membership by a member of the Institute and approved by the Executive Committee.

Article 5—Organization

The general direction of the Institute shall be vested in an Advisory Council of twenty-four members to be elected from the membership of the Institute; at the first election there shall be elected eight to serve for one year, eight for two years, and eight for three years, but after the first year the term of office for members of the Advisory Council shall be for a period of three years.

The Advisory Council shall elect from among its own members officers as follows:

A president, 1st vice-president, 2nd vice-president, treasurer and five others, the nine to form the Executive Committee. The terms of office shall be for one year.

A paid secretary may be engaged by the Executive Committee.

There shall be an annual meeting. Each member shall have the privilege of voting

in person or by mail, at the annual meeting for candidates to fill vacancies on the Advisory Council. The annual meeting shall be held in Washington, D. C., on the second Wednesday in May. The officers first elected after the adoption of this Constitution shall hold over until the second annual meeting which is to be held in May, 1923.

Special meetings may be called by the president, or, upon the request in writing of any twenty members of the Institute the president shall call a special meeting.

The duties of all officers shall be such as usually pertain to their respective offices, together with such other duties as may from time to time be prescribed for them by the by-laws or the Advisory Council. The general management of the Institute shall be vested in the Executive Committee. The Executive Committee shall hold such meetings as circumstances justify, the time and place to be fixed by the president. The president shall preside at the meetings of the Institute, the Advisory Council and the Executive Committee, but in the absence of the president the duties shall be performed by the senior vice-president present. In the absence of the president and the vice-presidents the duties of the president shall be performed by a president *pro tem*, elected by the Executive Committee. The treasurer, who shall be bonded in a sum fixed from time to time by the Executive Committee, and the secretary shall be charged with such duties as the Executive Committee may determine.

This Constitution and by-laws may be altered, or amended, by the vote of not less than two-thirds of the members voting. But such proposed amendment must have been proposed in writing, and copies thereof must be sent to each member in good standing two weeks previous to the time of voting.

Any member entitled to vote (but not present at the meeting) may do so by sending to the secretary a ballot prepared under regulations prescribed by the Executive Committee.

(Turn to Page 44, Please)

WHAT ABOUT THAT?
(Continued from Page 25)

tions and the diurnal rotations of our globe to such an extent that we can calculate eclipses of the sun and the moon years in advance of the occurrence.

We are enabled to divide the annual rotations of the earth around the sun, so as to produce a 24-hour day, coming out even each year, until leap year, as everyone knows.

Do you realize what the result would be if in our modern world we would suddenly be deprived of time measuring instruments?

Few people realize that a watch or clock is really a gauge for the measuring of the flight of heavenly bodies. It is an instrument designed to keep step with the works of almighty God.

Today, no one seems to realize that the earth performs its natural functions because of phenomena that man can not reproduce such as a perfect vacuum, equal gravity pull and perpetual motion.

Yet, man has produced, through thousands of years of trial and error, this marvelous machine which almost keeps step with the work of the Almighty, in spite of our inability to overcome friction, air resistance gravity pull, thickening of oil, stresses, torques and jars and centrifugal force.

No human being is able to bring to the public knowledge, the wonders of time measurement, or how far short human ingenuity falls, as compared to the works of the great Creator.

If anything would ever bring a man to realize the shortcomings of human workmanship, it would be watchmaking, for every watchmaker realizes this shortcoming. He is in direct competition with the great Creator's work.

Though we hit pretty close, we know that the earth has not varied a thousandth of a second in a million years.

The Bureau of Standards in Washington, D. C., allows 30 seconds a week variation for the finest railroad watches.

In actual calculation, that would be 9,995 ten thousandths perfect, but not quite perfect, by 5 ten thousandths.

The finest wrist watches are allowed a variation of 30 seconds per day, in the Bureau of Standards. Most wrist watches do not run that close, because they are subjected to so many changes of position, and shocks, jars and bumps.

BIG TIME OPERATOR



Laura Barone figures rightly they'll need a real Amazon to wear this giant Lady Elgin wrist watch, displayed in replica of actual lucite gift package. Mammoth timepiece, designed for display at jewelry and horological conventions, is studded with 94 zircons ranging up to 10-karat size, is fitted with a B. W. Raymond 16-size movement, and cased in sterling silver with rhodium plating. It weighs one pound, five ounces.

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First Vice-President—Edward H. Hufnagel, President, American National Retail Jewelers' Association, Mt. Vernon, N. Y.

Second Vice-President—Webb C. Ball, Webb C. Ball Co., Cleveland, Ohio.

Treasurer—John J. Bowman, Director, Bowman Technical (Horological) School, Lancaster, Pa.

Secretary—Paul Moore, Secretary, Division of Research Extension, National Research Council, Washington, D. C.

Executive Committee—above officers and the following:

Dr. A. F. Beal, Chief, Time Section, U. S. Bureau of Standards, Washington, D. C.

Edwin F. Lilley, Dean, New England Jewelers' Institute, Milford, Mass.

Ferdinand T. Haschka, Head Watchmaker, Tiffany & Co., New York.

Alfred G. Stein, Patek Philippe & Co., New York.

Robert F. Nattan, Jewelers' Circular Publishing Co., New York.

Original Members of the Advisory Council

For a term of three years (beginning October, 1921)—George W. Spier, Washington, D. C.; E. A. Marsh, Consulting Superintendent, Waltham Watch Co., Waltham, Mass.; Edwin F. Lilley, Milford, Mass.; Edward H. Hufnagel, Mount Vernon, N. Y.; Webb C. Ball, Cleveland, Ohio; Robert F. Nattan, New York; John J. Bowman, Lancaster, Pa.; A. L. Hamen, Omaha, Neb.

For a term of two years—Dr. A. F. Beal, Washington, D. C.; Dr. George F. Kunz, Mineralogist, Tiffany & Co., New York; Alfred G. Stein, New York; Ferd. T. Haschka, New York; Paul M. Chamber-

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YOUR QUESTIONS ANSWERED

(Continued from Page 40)

Answer:

There is an oddity about the old watch described in your inquiry that will take more than a written description to straighten it out. There are evidently three different makers' or firm-names on the movement and dial: Chopard, Viessiox, and Lecoq. Of these, we have record that there was a watchmaker named Lecoq in business in Paris, France, between 1808 and 1820. His first or christian name is not given in our data, nor is it on the watch; nor do we have any mention of a "G. Chopard" or "A. Viessiox" in our lists, although there are several Chopards with other Christian names than one with initial G.

In any cases wherein we cannot identify a watch with its maker, sometimes an examination of the watch, or clear photographs of it, may show features enabling us to judge its approximate age, where it was made, etc. If you care to send us good photos showing several views of movement

(Continued on Next Page)

YOUR QUESTIONS ANSWERED
(Continued from Page 44)

and case, in as good detail as possible, we would write you with any opinion we could form, from an examination of the pictures.
"THE PROFESSOR."

Dear "Professor":

I have in my shop now for repairs an early English watch, and would like to know what information you could give me about its maker (the year he made watches, etc.).

This watch is approximately 18 size, open face, key wind. There are no markings on the movement, but the inside back cover has the following: "No. 371, ARNOLD HYDE & CO., LONDON, Detached Lever, 6 Holes Jewelled." There is also the picture of a goat or ram next to the winding hole.

Thanking you for any information you can give on this, I am
D. R. M.

Answer:

Your letter asks about the maker of a watch you have, that is signed "Arnold Hyde & Co., London." There is no data on this firm in any of our lists of former English watchmakers. But if you would send us impressions of any hall-marks in the case, made by pressing hot sealing-wax into the marks, together with good photo-

(Turn to Next Page, Please)

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DEAN WATCH COMPANY

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YOUR QUESTIONS ANSWERED
(Continued from Page 45)

graphs of the movement and case, we would write you on anything that these may indicate about the origin of the watch.

“THE PROFESSOR.”

Dear “Professor”:

I have a 20 ligne Pocket Chronometer engraved “Paul Breton, Geneva,” and would be interested in receiving some information regarding the setting up of the escapement. Two points in particular have my concern: 1. The adjustment of the pivoted detent, and 2. The impulse jewels’ relationship to the detent. Thanking you.

G. F. S.

Answer:

Concerning study of the subject of adjusting escapements in marine chronometers (the “detent” escapement), in our opinion this requires more than you could get from the necessarily brief statements that could be made in a letter; so we suggest that you obtain, from any of the material houses, the book “Watch and Clockmakers’ Handbook, Dictionary and Guide,” by F. J. Britten. This is arranged alphabetically as to subjects in detail, such as “chronometer,” “detent,” “impulse pin,” etc.; and among books that are now on the market, it is probably the most suitable for your purpose. If you have access to a library that has the “Treatise on Modern Horology,” by Claudius Saunier, in that would be found a fuller treatment of principles of the action of the chronometer escapement in all of its varieties; Saunier’s work is out-of-market except as a “rare book” item usually quoted at anywhere between \$50 and \$75 and hard to find at that. The Britten book referred to gives briefly the essential practical directions for repairing, cleaning and adjusting the mechanism of chronometers.

“THE PROFESSOR.”

**Condensing of Moisture in
Waterproof Cases**

Dear Professor:

In regard to question in the H. I. A. Journal (Oct., 1949) concerning the condensation of water in waterproof watches, I wish to tell you of a method which has solved the same problem for me.

With the watch in the case and ready to be sealed but with the back still off, place the watch near a source of heat, such as a light bulb, and leave it near the heat for several minutes, then seal the watch while warm. This does not require much heat, not enough to damage the watch in any way, and to date this method has proved satisfactory in every case of such condensation that I have encountered, regardless of the humidity.

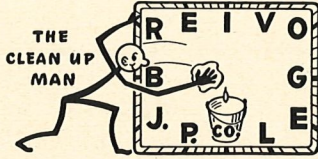
J. W. B.

EARLY ELGIN WATCHES



First watches ever manufactured in this “city made famous by time” are displayed at Elgin Watchmakers’ College as part of observance marking Elgin’s 85th anniversary. William H. Samelius (right), director of the school, holds first Elgin man’s watch, completed April 1, 1867, while James J. Gilliam, assistant director, examines the first lady’s watch, dated May 1, 1869. Both timepieces, key-wound and key-set, are still in good working order.

Meet "Little Dan"



Dan's been making new dials out of old ones at our place for 30 years or more. We keep him on because he has a habit of making friends—thousands of them—who'd swear on a stack of pocket watches that Dan consistently turns out the finest dial-refinishing jobs they ever saw. Every dial that Dan refinishes gets our exclusive PERM-ENAM treatment, the original dial-enameling process. Every dial job is guaranteed against tarnishing for ONE YEAR.

If you're the kind of fellow who insists on fine work and prompt service, drop Dan a line today and receive his price list and free mailing envelopes by return mail.

P. J. Breivogel Co.

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FRIED MANUAL ADOPTED BY CHICAGO INSTITUTE OF WATCHMAKING

Paul Leeds, Director of the Chicago Institute of Watchmaking, has announced that after a careful study and consideration, the faculty and Board of Directors of the Chicago Institute of Watchmaking has decided to use the "Watch Repairer's Manual" by Henry B. Fried as the study text book for their nationally accredited school.

Mr. Fried, who is an eminent horologist, writer and teacher, is a member of the advisory council of the Horological Institute of America.

The Chicago Institute of Watchmaking is one of many leading schools that have adopted the Fried manual as an important adjunct to their training program.

CLEARANCE—The amount of tolerance allowed for "freedom" of operation.

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<p>SWISS</p> <p>FF120 (6x8) 7-Jewel.....\$3.95 17-Jewel.....\$5.95</p> <p>AS (5L) 17-Jewel.....\$6.95</p> <p>AS (10 1/2 L) 7-Jewel.....\$4.50 15-Jewel.....\$5.50 17-Jewel.....\$6.00</p> <p>9 3/4, 11-1/2, 6-3/4, 4-3/4, 6-1/2, 6 ligne 6 or 7 Jewel.....\$2.00 15-Jewel.....\$4.00 17-Jewel.....\$5.00</p> <p>ALSO AVAILABLE 6 1/2 L oval 6-3/4 L tonneau 7x11 Eta</p>	<p>HAMILTON</p> <p>6/0 17-Jewel.....\$15.00 (12 size)</p> <p>17-Jewel.....\$11.50 (16 size)</p> <p>17-Jewel.....\$14.00 (18 size)</p> <p>17-Jewel.....\$ 7.50 21-Jewel.....\$14.00</p> <p>BULOVA'S</p> <p>8x12, 7x11, 8x9 ligne 7 A.M., 10AN- 8AH-8AE 15-Jewel.....\$10.00 17-Jewel.....\$12.00 21-Jewel.....\$15.00</p> <p>5 AB—6x8 ligne Bulova 17-Jewel.....\$12.00</p>	<p>GRUEN AND BENRUS</p> <p>6x8 15-Jewel.....\$10.00 17-Jewel.....\$12.00</p> <p>10-1/2, 7x11, 6-3/4, 6, 4-2/3, 5-1/4 ligne 7-Jewel.....\$5.00 15-Jewel.....\$8.00</p> <p>OTHERS— 16 SIZE</p> <p>21 Jewels—Elgin, Illinois, Bunn Special\$19.95</p> <p>21 Jewels— Hamilton 1 Million\$22.50</p> <p>23 Jewel—Vanguard Waltham.....\$22.50</p>	<p>10 Ass't American Made Practice Movements ..\$15.00</p> <p>10 Ass't Swiss Movements ..\$10.00</p> <p>WALTHAM & ELGIN (0 and 3/0 size) 17-Jewel.....\$4.00 15-Jewel.....\$6.00</p> <p>4/0 7-Jewel.....\$ 5.00 17-Jewel.....\$10.00</p> <p>6/0 7-Jewel.....\$5.00 15-Jewel.....\$7.00</p> <p>8/0 7-Jewel.....\$6.00 15-Jewel.....\$9.00</p> <p>10/0 7-Jewel.....\$5.00</p>	<p>15-Jewel.....\$7.00 18/0 7-Jewel.....\$5.00 15-Jewel.....\$7.50 (12 and 16 size) 7-Jewel.....\$4.50 15-Jewel.....\$7.50 17-Jewel.....\$9.50 (18 size) 7-Jewel.....\$3.00 15-Jewel.....\$4.00 17-Jewel.....\$5.00</p> <p>6 1/2—7-1/4—8-3/4 ligne Waltham 7-Jewel.....\$ 5.00 15-Jewel.....\$ 7.00 17-Jewel.....\$10.00</p> <p>7 1/2 ligne-750 Waltham 7-Jewel.....\$ 6.00 15-Jewel.....\$ 8.00 17-Jewel.....\$12.00</p>
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25% with order—
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Results Reported On "Watch Inspection Time"

The Jewelry Industry Council has issued a report on its first nation-wide promotion of "It's Watch Inspection Time" campaign, observed Sept. 12-17. A tabulation of answers to questionnaires was made by Recording and Statistical Corporation of New York.

Slightly more than 63 per cent of retailers showed an increase in watch repair income for September, 1949, as compared to August, 1949. Watch attachment sales increased by 47 per cent; watch sales increased 25 per cent. Other types of jewelry increased 13 per cent.

The report also showed that for the month of September, 1949, compared with September, 1948, an increase of 60.8 per cent in watch repair income was made by the reporting retailers. Only 23 per cent reported a decrease and 16.2 per cent "no change or don't know." On watch attachments, 61 per cent reported sales increase; 24 per cent decrease; 15 per cent "no change or don't know." On watch sales, 43.2 per cent reported increases, while 35.4 per cent reported decreases.

Window displays were used by 92 per cent of the retailers; "instore" displays, 59

per cent; newspaper advertising, 54 per cent; radio, 17 per cent; direct mail, 14 per cent; and outdoor advertising, 3 per cent.

A total of 573 retailers reported on the campaign, and comments urged repeating campaign in 1950. The Council has set the date of Sept. 7-16 for the 1950 campaign.

Winning Essays- "IT'S WATCH INSPECTION TIME"

Each entrant submitted an essay on "How I Made a Success of Watch Inspection Time" and a photograph of a store window displaying "It's Watch Inspection Time" material.

A resume of the winning essays in the Watchmakers of Switzerland "Watch Inspection Time" Contest will be carried in the January issue of the H. I. A. JOURNAL.



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Write for information folder

Terre Haute School of Watchmaking
Terre Haute, Ind.

Hamilton Receives Award

The Hamilton Watch Company has been given the "Oscar of Industry" for having the best 1948 annual report in the watch and clock industry of the United States. The bronze trophy was presented to R. M. Kant, president, at the Annual Awards banquet held in the Hotel Statler in New York on Oct. 31.



Top award for the best 1948 Annual Report Survey in the watch and clock industry is accepted by (left) R. M. Kant, president of the Hamilton Watch Company; (right) Weston Smith, executive vice-president of Financial World, made the "Oscar of Industry" presentations at the annual awards dinner in New York's Statler Hotel on October 31st.

More than 4,500 corporation annual reports were submitted in the national survey of industries, carried on for nine years. This is the second time since 1943 that Hamilton was given the bronze "Oscar," and, in four other years, finished among the first three.

Weston Smith, executive vice-president of the Financial World, presented the "Oscar of Industry" trophies at the banquet, which was attended by more than 1,200 business and financial executives of the nation.

NEW DEPARTMENT CREATED

To further assist their dealers in creating eye-appealing displays, the Elgin Watch Company has established a branch in their advertising department to create, test, supervise production and distribution of point-of-purchase aids, was announced by Gordon Howard, advertising manager.

Arthur H. Hammerstrom, whose appointment as director of point-of-purchase display aids for Elgin National Watch Company was announced by Gordon Howard, advertising manager.



Mr. Arthur H. Hammerstrom, a well-known Chicago designer of displays, is in charge.

Mr. Hammerstrom studied display design at the Chicago Art Institute, and has a successful background in this highly specialized field. Prior to his enlistment in the U. S. Army Air Forces, he was associated with Gregory, Inc., Chicago, as designer of point of purchase and spectacular neon displays.

With the Elgin Watch Company he will supervise all point of sales helps, including neon spectaculars, clocks, traveling displays, seasonal sales helps and convention exhibits.

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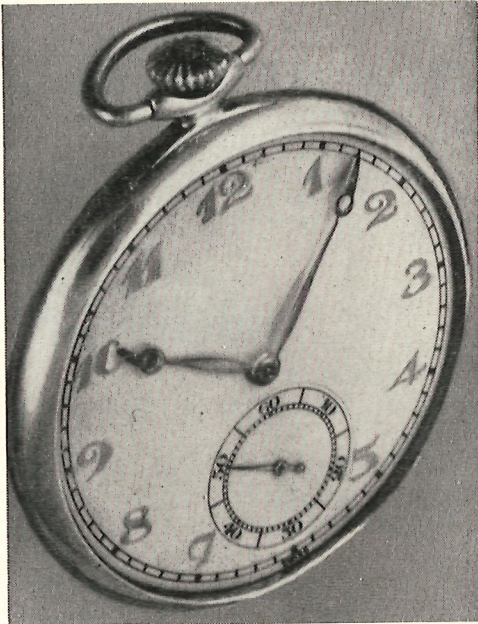
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FIRST & FOREMOST IN—
STEMS
IN SEALED ENVELOPES

- FOR PROTECTED QUALITY
- FOR EASY INTERCHANGEABILITY
- FOR MOST COMPLETE RANGE

ORDER FROM YOUR JOBBER

World's Lightest Watch

The "World's lightest watch" has come from the craftsmen of Switzerland, a watch weighing only seven-tenths of an ounce, costing about \$600 each. All parts are made of aluminum alloy, except the Swiss movement.



A jeweled-lever watch made almost entirely of aluminum and weighing only seven-tenths of an ounce has been produced by the technicians of a famed horological factory in Switzerland.

These watches could float on water, but, since they are not waterproof, such treatment is not recommended. A year of research and preparation was required to create "the world's lightest watch."

Approximately 200 of these watches have been made for executives of aluminum Canada, the United States and elsewhere.

LT. GENERAL PRESENTS HAMILTONS

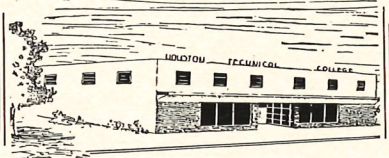
Lt. General Ennis C. Whitehead presents a Hamilton "Neil" model to PFC. James F. Noonan, winning pitcher for the Bolling Field Flyers in the final game of the Air Forces World Wide Baseball Series. Seventeen other players on the winning team were also given Hamilton watches by General Whitehead.

SWISS MERCHANDISING COORDINATORS APPOINTED



Robert H. Russell (left), John McManemin (center), and Wallace H. Goldsmith II have joined the staff of Foote, Cone & Belding International Corporation. They will serve as field merchandising coordinators for The Watchmakers of Switzerland. Russell, who will be in charge of Western United States activities, will headquarter in Los Angeles; Goldsmith, covering the Midwest, will have offices in Chicago; McManemin, Eastern coordinator, will work from New York City.

MR. JEWELER!



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HERE'S SOME MORE ABOUT OILING THE CENTER STAFF

Thanks to Taylor & Taylor for coming to my rescue in the October issue. I am glad to know that someone else oils the center staff. I was about to think that maybe I was the only center post oiler in captivity.

I wonder if our readers enjoy all this argument or if they get tired of it. I feel that information printed for the use and guidance of our younger watchmakers and students should be as nearly correct as possible, so to settle (I hope) this question I would like to quote the following:

Mr. Geo. J. Wild Dean
Horology Division
Bradley University

"A small amount of oil should be placed on the center staff in order that the cannon pinion may be lubricated when it is caused to turn on the center staff."

Mr. H. B. Fried, C. M. W.
Member Adv. Comm., H. I. A.

"Oil the center wheel post.

Mr. D. W. Leverenz, Watch Engr.
Elgin National Watch Co.

"Here in our factory, we oil this bearing very sparingly. A small amount of oil is necessary to prevent the cannon pinion from 'freezing' onto the center staff."

Hamilton Watch Company
Technical sheel No. 130

"When oiling lower center jewel a small quantity of oil should be placed on the center staff so that the cannon pinion will be properly lubricated during setting."

Mr. Max Swartz, Senior Instructor
Joseph Bulova School of Watchmaking

"The center arbor of the center wheel requires some lubrication before the cannon pinion is fitted on the shaft."

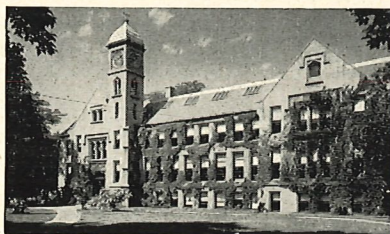
Donald de Carle, F. B. H. I.

"Slightly oil or grease with clock oil the center wheel arbor and press the cannon pinion into place."

I could quote others, but to me this should be sufficient.

W. R. KINGSTON
LeGrand Jewelry Company
Chattanooga, Tenn.

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JEWELRY
STONESETTING
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Horology Division

Department I, Peoria, Illinois

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- FOR EASY INTERCHANGEABILITY
- FOR MOST COMPLETE RANGE

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MINUTE # 12
¼ DOZEN
"THE BESTFIT"
Genuine
6C INDEX
HAND
REFILLS

Men's and Ladies' Stainless Steel Spring Type
WATCH BANDS

Watch Bands, 25c to \$1.00 Each.

Massive Stainless Eternium Skull, Saddle, and
Indian Head Rings, all quarter sizes, \$1.25 each

STAINLESS METALCRAFT CO.

1618 N. 77th Ave., Dept. J — Chicago 35, Ill.

action ceases to exist and should the watch receive a sudden jolt or jar, the pallet stone would prematurely unlock, permitting the fork to advance to the opposite banking, the fork horns "blocking" the normal travel of the roller jewel. This situation is called "jewel-pin out of action" or "overbanking."

5-A. Guard-Pin Check-up.

Procedure: After the corner-freedom or jewel-pin check-up (a) turn the balance slowly with your left thumb until the roller jewel is one-fourth turn past line of centers. The fork will now be at "total lock" (lock plus slide) and against the banking. (b) Hold the balance wheel in this position and (c) with small steel "feelers" move the fork until the guard finger touches the edge of the "guard" or "safety-roller" table. Carefully note the amount of "shake." (c) Repeat this procedure with roller jewels on the opposite side of "line of centers." Note: The guard-pin clearance or shake would be equal at any point on the guard or safety roller. The amount of clearance between the "tip" of the guard-finger and the edge of the "guard" or safety-roller edge can be seen by the amount of upward travel of the locking face of the pallet stone on the locking face of the escape wheel tooth. Caution: The clearance distance should not exceed one-half of the amount of "drop-lock."

Fork Horns

(6) *Fork Horns, Their Function.*

During the period the guard-finger is in the "passing hollow" or crescent of the guard or safety-roller, it is ineffective and any jolt or jar at this time would cause a "jewel-pin out of action" or "over-banked" condition were it not for the fork horns acting as a guard during this interval.

(7) At this point it will be necessary to open the bankings slightly to permit safe clearance between the "heel" of the

teeth and the "let-off" corner of the pallet stones to allow for the "gumming" of oil and the accumulation of dust and other foreign matter. This is known as "run" or "slide." Note: The "run or slide" clearance may be "seen" as the distance between the lever at "drop-lock" and the banking pin. The amount of "run" or "slide" can also be seen as the distance from the locking face of the pallet stone moves down the locking face of the escape tooth, after drop-lock, until the lever is against the banking. Caution: The "run" or "slide" should not exceed one-half the drop-lock. One-fourth would be more desirable.

(8) If the "banking to drop" procedure has been accurately performed, by giving the balance-wheel a gentle swing, the watch will run on "half-time" (without hair-spring).

In the next issue of the H. I. A. JOURNAL, escapement errors and their correction will be described.

DEFINITION OF TERMS USED IN "BANKING TO DROP"

ANGLE OF DRAW—The angle on which the pallet jewels or "stones" are set in the pallet-arms, usually 12° .

The purpose of "draw" is to hold the pallet lever against the bankings and the guard-finger away from the guard or safety roller-table edge during the normal "detached" swing of the balance assembly.

BALANCE ASSEMBLY—Balance staff; guard roller; impulse roller; balance wheel; hairspring; balance cock.

BANKINGS—BANKING PINS

The obstructions which regulate the angular travel of the fork. The general types are: eccentric screw, stationary and pallet bridge.

BANKING TO "DROP"—The adjustment of bankings to eliminate "run" or "slide."

(Continued on Next Page)

TERMS — BANKING TO "DROP"
(Continued from Page 52)

- CRESCENT** — The semi-circle indentation in the edge of the safety or guard roller.
- DETACHED SWING — BALANCE**— The "travel" of the balance assembly after the roller jewel has received its impulse from the fork.
- DROP**—The forward travel of the escape-wheel after the completion of "lift," until interrupted by the locking stone. The distance between the "heel" or "let-off" corner of the unlocked tooth and the let-off corner of the unlocked pallet stone. The space should be equal on the "R" and "L" sides.
- DRAW**—See Angle of Draw.
- DRAFT**—See Angle of Draw.
- "END-SHAKE"**—The tolerance allowed for "end-thrust" of pivots.
- ENTRANCE CORNER**—The corner of the pallet stone first receiving the "lifting" action of the escape tooth plane.
- EXIT CORNER**—The corner of the pallet stone terminating the "lifting" action of the escape tooth plane.
- "FEELER"**—A small tempered steel rod for testing clearances or "shakes" in escapement adjustment. Also for checking "endshake" of train wheels.
- FORK**—The upper terminal of the lever consisting of the guard finger, slot and horns.
- FORK-HORNS**—The wing-like projections on the end of the fork. A substitute for the guard finger during the "inactive" period it is in the guard roller crescent or "passing-hollow."
- GUARD-FINGER**—The small dart-like projection attached to the side of the fork below the slot and extending to a point inline with the tips of the fork-horns; terminating in an arrow-head point. The purpose of the guard-pin or finger is to prevent unnatural unlocking of the escape tooth. In event of a sudden jolt or jar the angled faces of the guard-finger contact the edge of the safety or guard roller, thus preventing the pallet stone from reaching the normal unlocking position. The "Angle of Draw" instantly returns the lever to the "banks" and in position for regular unlocking by the roller-jewel.
- GUARD ROLLER**—The small or lower disc attached to the balance staff, which acts in conjunction with the guard finger in preventing premature unlocking of the escape tooth.
- HALF-TIMING** — Running the watch without hairspring.
- HEEL-ESCAPE TOOTH**—The tip end of the escape tooth lifting plane. The "let-off" corner of the tooth.
- IMPULSE JEWEL**—The small projecting "half-moon-like" jewel set in the impulse roller table. The connecting "link" between the pallet level and the balance assembly.
- IMPULSE ROLLER TABLE** — The large or upper disc which carries the "impulse" or roller jewel.
- JEWEL-PIN**—See Impulse Jewel.
- "LEVER"**—The flat bar-like portion of the pallet which connects the pallet "arms" with the fork assembly. (See Fork).
- "LET-OFF"**—See "Drop-Lock."
- "LIFT"**—The resulting action of the Escape-teeth planes contacting the impulse faces of the pallet stones, thus transmitting power (impulse) to the balance assembly through the medium of the roller or "impulse" jewel.

(Turn to Page 55, Please)

The December Cover Story . . .

During several periods death has been introduced into art as appropriate motive—one then speaks of “macabre style.” The goldsmiths of the 17th century made jewels in the form of death’s heads—in copper, embossed silver, or sculptured in ivory or even mountain crystal. Some of these jewels were used as emblems by several lay-orders, such as the Knights of Jerusalem. Those little skulls had been only jewels; it took but another step to transform them into watches.

We know of several death’s head watches by master watchmakers in Geneva, and they vary considerably. We reproduce one of the most beautiful on this issue’s cover.

It was made by Jean Rousseau (Geneva 1606-1684), the great-grandfather of the writer, Jean Jacques Rousseau. The skull case is of embossed and chiselled silver. In a large medallion on the forehead we find our oldest forebears in the Garden of Eden. Over the engraving runs a scroll with “Stipendia Peccati Mors. Donum.”

“The wage of sin is death which is a gift.” The subject of another medallion on the back of the skull is the resurrection. Another scroll along the base of the skull bears the inscription “Sicut in Adamo Omnes Morunur ita & in Christo vivicabuntur” (“Just as all have died in Adam, so all will be revived in Christ”).

The whole skull is finely perforated and pierced so that the sound can issue freely when the bell rings, since the watch is equipped with an alarm. The watch opens between the jaws.

Although this magnificent piece belongs to the collection of the Louvre Museum in Paris, the art which created it remains the priceless treasure of Swiss master watch craftsmen, who have handed down from generation to generation.

(This is the sixth of a series of cover illustrations of Antique Watches. The historical data was supplied by Prof. Eugene Jacquet, one of the world’s outstanding horologists. Professor Jacquet is curator of the Geneva Watch Museum; President of the Swiss Chronometer Society; director and professor at the Geneva Watchmaking School for 30 years and professor of the renowned Bienne Technicum for five years.)

TERMS — BANKING TO "DROP"

(Continued from Page 53)

PALLET "ARMS"—The arm-like projections in which the pallet stones are "set."

PALLET JEWEL—The small claw-like flat jewels set on an angle of approximately 12° in the pallet "arms" to create "draw" or "draft." The different "facets" or "sides" are: The locking-face, the entering corner, the impulse-face and exit corner.

"PALLET-STONE"—See pallet jewel.

"PASSING-HOLLOW"—See Crescent.

ROLLER-TABLE—See Impulse roller.

"RUN"—The action of the locking face of the pallet-stone on the escape teeth after "drop-lock" until the lateral travel of the lever is stopped by the "banks."

SAFETY-ROLLER—See Guard Roller.

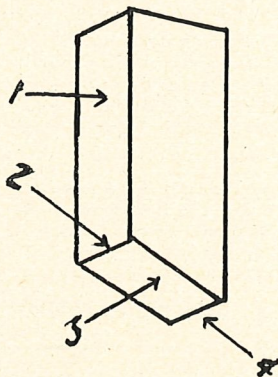
"SHAKE"—See Clearance.

"SIDE-SHAKE"—The tolerance allowed for "side-play" of pivots in bearings.

"SLIDE"—See "Run."

TOE-ESCAPE TOOTH—That part of the escape-tooth which first engages the impulse face of the pallet stone at the beginning of the "lifting" action.

TOTAL-LOCK—Drop-lock plus "Run" or "slide."



- 1—Locking face
- 2—Entering corner
- 3—Impulse face
- 4—Let-off corner

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Thus, the meeting in October of horologists of the United States with horologists of Canada, members of the H. I. A. and the Canadian Jewelers Institute, brought together the leaders of both countries and a conference for the advancement of Horology was held.

Certainly much good will result from that meeting and the tentative plans for another meeting in 1950 will do much to extend more friendly relationships with the Canadian horologists. Leadership by the H. I. A. was virtually admitted by the Canadian horologists, who said that their organization had been largely "patterned" after the H. I. A.

Perhaps, eventually, there may be formed "The International Horological Institute," embracing not only Canada, but other nations of the world.



1950
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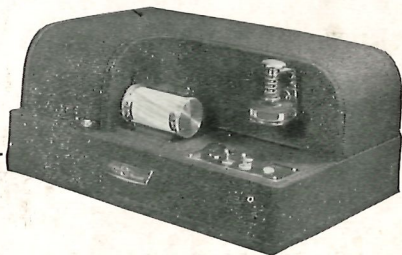
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