

**How to select
and care for
a fine watch**



The labor of a watch

The average balance wheel vibrates or ticks:

5 times each second
300 times each minute
18,000 times each hour
432,000 times each day
157,680,000 times each year

Such a balance wheel travels between $1\frac{1}{4}$ to $1\frac{1}{2}$ inches at each vibration. In one year's time this is equal to approximately 3733 miles or considerably more than the distance between New York and San Francisco.

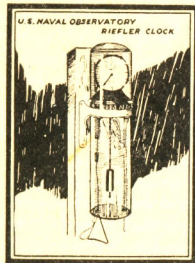
Traveling by train, about thirteen freshly oiled and inspected locomotives would replace each other in a run of this distance. A motor car on this journey would require fresh oil every five hundred or one thousand miles—or seven times during the trip.

A watch, which operates continuously and runs the equivalent of this distance without rest or attention certainly deserves to be inspected and freshly oiled once a year.

Your Watch and its Care



How accurate should your watch be?



IN THE U. S. Observatory at Washington there are several Riefler clocks which have been built and installed at great expense.

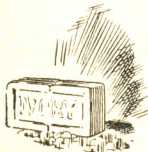
These clocks have been mounted on concrete piers sunk deep in the earth to avoid vibration.

They are housed in a room which is kept always at constant temperature. Every 28 seconds they are automatically wound by electricity—they run in a vacuum. Yet in spite of all precautions which human ingenuity can devise, these clocks *do not keep perfect time.*

The fixed stars are nature's own time-keepers. They alone are absolutely accurate. Through nightly observations of the stars, corrections are made in the variations of these Riefler clocks so that the nation may have its time as *nearly correct* as is humanly possible.

The public, ordinarily unaware that the keeping of perfect time is a mechanical impossibility, grievously errs in expecting *absolute accuracy from a watch*. Bumped and rattled about, subjected to extreme variations in temperature and position, wound at any time or not at all—and allowed to run with the accumulated dirt of years and the absence of any trace of oil, a watch which keeps approximately good time is indeed a marvelous machine.

99 $\frac{95}{100}$ percent accurate



A well known soap is advertised as being 99-44/100% pure, which is accepted as well-nigh perfect purity. Yet a watch which gains or loses *only five minutes a week is 99-95/100 percent perfect*.

Pocket watch accuracy should not be expected or demanded from a wrist watch because its smaller mainspring does not possess the power to drive the mechanism with the same continuous uniformity. Consider that one minute's variation a day means only one beat's variation out of 1440—or a deviation from perfection of less than seven ten-thousandths. Therefore, *the following table may be accepted as defining the timekeeping accuracy to be expected from a wrist or strap watch:*

- $\frac{1}{2}$ minute a day is *very good* time
- 1 minute a day is *good* time
- 2 minutes a day is *standard government time* required of a large strap watch.

How to care for your watch

A good watch is the most delicate, accurate instrument in general use, made up, as it is, of over 150 parts. The tiny wheels, screws, balances, escapement, pinions and pivots are made with a mathematical precision rarely employed in other commercial manufacture.

Science, art and the greatest human skill all contribute to the making of your watch. In justice to this painstaking care and to

the service you have a right to expect from your watch, you should give this marvelous mechanism the simple and reasonable care which will help it to serve you faithfully and well.

There are three rules which, if observed, will contribute most to the life of your watch:

- 1—*Do not wait for your watch to break down from overwork.* When a watch stops because of accumulated dirt in the movement or lack of oil, it means that for the last several weeks or months it has run under an excessive strain which may do damage requiring the replacement of vital parts.
- 2—*Trust your watch only with a capable watchmaker.* Tinkering with it yourself or having repairs attempted by an unskilled workman will probably do more harm than good.
- 3—If your watch receives a severe jolt or is dropped, stop in at your jewelers and let him examine the movement to determine whether the balance pivots or jewels have been injured. Otherwise your watch may labor with a bent pivot or a cracked jewel unnecessarily causing great wear.

How to wind, set and wear your watch

Wind your watch *fully*, else it may not run a full 24 hours. Few mainsprings are broken in winding.



A watch will run most uniformly if wound at regular intervals, *preferably in the morning.* Then the mainspring will exert its greatest power during the activities of the day and its lowest power at night when your watch is at rest, while you sleep.

In setting (other than a striking watch or chronometer), move the hands either forward or backward. No damage is done setting the hands when the watch is running.

At night keep your watch away from radiators or open windows. Excessive heat or cold adds a burden to accurate watch operation.

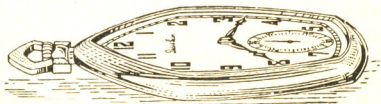
Keep your watch pocket or your handbag free from lint or dust if you carry your watch there.

Do not keep your watch under your pillow at night where it is likely to be displaced and receive a bump or fall.

Do not wear a watch in a strong magnetic or electric field else it may become magnetized. Avoid close or continuous proximity to telephone switchboards, exposed electric generators or transformers, powerful radio transmitters, etc. Mainsprings break sometimes without any apparent reason, although the cause is sometimes traced to magnetism. A good mainspring has qualities of strength and resiliency that may cause it to snap, whereas a poor, spongy one may never break.

Pocket Watches

So far as practical, keep your watch upright—the best position. At night, if you remove it from your pocket, place it face (dial) up. This is the best flat position for any watch.



Carry it in your pocket with the crystal turned towards your body. The likelihood of breakage is thereby lessened.

Do not unnecessarily open the face or back of your watch, exposing it thus to particles of dust and dampness.

Wrist Watches



Care should be taken to see that face powder does not come in contact with a small wrist watch where it may work into the movement. Remove the watch from the arm when the toilet is being made and never place it in a purse or dresser drawer in which a powder puff has been kept.

It goes almost without saying that a watch should never be immersed in water. The case is never absolutely watertight and, should moisture be admitted, the steel parts will become rusted. It is wisest then to immediately consult a reliable jeweler. To delay such attention is to invite serious damage and possibly costly repairs.

To obtain the maximum of accurate time-keeping your watch should be regulated to your own activities. A watch will not

run the same when carried by two different people, although their habits may be almost identical.

How to judge when your watch needs attention

If an immense locomotive driving wheel could travel continuously at the rate of a mile a minute, it would make 403,361 revolutions in 24 hours. The delicate balance wheel of a watch makes 432,000 in the same time. A locomotive is run for only about 240 miles after which a freshly oiled one takes its place. At this rate, six engine changes would be made in 24 hours. Should not your watch receive attention at least once a year?

Providing you have not dropped your watch or otherwise injured it, use the following as a guide to its proper care:

Pocket Watches

A pocket watch, having a powerful mainspring, will run for a while even though all trace of oil has disappeared and considerable damage may so be done by scoring of the pivot bearings. It is essential, therefore, that it be cleaned and oiled every 12 to 18 months even though no signs of trouble are noticed.

Wrist Watches

Because of its smaller size, a wrist watch is more susceptible to variation through the admittance of dust or the drying of oil. Having an obviously smaller, less powerful mainspring, less resistance is required to disturb its fine adjustment or cause it to stop entirely. A tiny speck of dust may cause it to stop. Consequently, a watch of this type may be safely allowed to run without attention until it runs irregularly or stops.

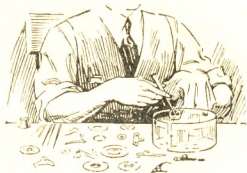
Wrist watches should be thoroughly overhauled, cleaned and oiled at intervals of about six months to a year. This servicing depending upon the size of the watch. The smaller the movement, the more frequently this attention is required.

There is only one right way to clean a watch

As in most other things, there is only one right way of having your watch cleaned. Unfortunately, most people have no appreciation of what this involves. As a result, good watches are sometimes unthinkingly left with non-professional workmen who, for a cheap price, simply dip the entire movement in some cleaning solution.

Quite naturally, therefore, the watch is soon found to be in need of another overhauling.

The proper way to have your watch cleaned is to take it to a jeweler whose watch making capabilities and business integrity are unquestioned. There, the movement is taken apart and each piece is separately cleaned to remove the accumulated dirt and old, gummed oil.



The movement is then reassembled and all bearing surfaces are oiled with highly refined watch oil, after which the movement is timed and readjusted.

Such watch cleaning is exactly the same as your watch received at the factory when it was new and, taking as it does several hours of a good watchmaker's time, it is worth the reasonable charges made, both because of the amount of professional time consumed and the length of trouble-free service such a proper cleaning assures.



The watch you buy and the service back of it

OF utmost importance to the purchaser when considering a new watch, is whether it will enjoy the heritage of parental protection. Has it a reliable, well-known name on its dial? Is it backed by a long-established organization? Will its owner be able to get standardized replacement parts and convenient repair service wherever he may be?

Satisfy yourself on these questions and your purchase will be a wise one.

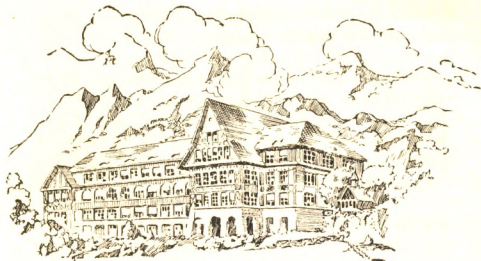
Most watches are born healthy, as most infants are; some are of strong, fine, rugged stock and stand the vicissitudes of time; others not inherently robust or strong enough for hard service to which all watches are exposed, quickly show their inability to function properly.

Even the best of watches, however, have natural ills which require the professional doctor, (the capable watchmaker) who prescribes a remedy and restores the time-piece to its original accuracy.

A physician makes an expert diagnosis and prescribes a treatment. In this case the prescription is usually filled at the corner drug store. But in the case of a watch having certain new parts prescribed, the expert's remedy cannot be applied if such new parts are not available.

Greatest difficulty is usually encountered with certain watches having imported Swiss movements which are assembled without any consideration for convenience in making repairs or replacements. Such watches are put together with parts filed, burnished or otherwise fitted so that, for a while at least, they run. The difficulty arises when the need for repairs occurs—parts accumulated from many strange sources and rebuilt for the particular job, are not standardized, therefore not economically nor satisfactorily repaired or replaced.

Watches of such inferior character reflect discredit upon the entire watchmaking industry of Switzerland, but this is no valid reason why Swiss watches generally should be thus condemned.



A model watch factory in Switzerland

Switzerland is everywhere recognized as the cradle of the watchmaking art. As fine linens are known by the entire world to come from Ireland, woolens from England, fine rugs from the Orient, so in Switzerland is found a heritage and native ability that produces today, as in the past, the finest watches in the world.

Switzerland makes many excellent watches but notably she produces the finest complicated watches made today. In fact, such watches as repeaters, split-second and stop watches with repeating mechanisms, very small and very thin watches, are not produced anywhere else.

Most watches made today in America or elsewhere in the world, contain some parts

of Swiss manufacture, such as hair springs, jewels, dials and main springs.

Given the sum of \$500 to purchase a truly fine watch in America—regardless of the store or city—New York, Chicago, San Francisco or New Orleans—the chances are nine out of ten that the purchase will be a watch of Swiss manufacture.

Because of this established and well-known reputation of the Swiss for fine watch-making, there have been attracted to that country many itinerant importers who sought to trade in cheaply made watches with the aid of Swiss prestige.

As a result certain Swiss factories now turn out movements within any price the scheming importer may designate. Such "factories" are oftentimes located in the attics of individuals' homes or lofts. It is not unusual for a town of 10,000 to 15,000 population to possess 200 of these so-called "factories" whereas the visitor can see but ten or twelve buildings that could be recognized and designated as watch factories.

The Swiss people consider watchmaking as natural to their every day existence as we consider our "three meals a day." There are many homes in Switzerland where father, mother and some of the



children assemble movements similar to the sweat shop systems in the clothing trade in America. At certain seasons of the year, representatives of watch importers travel from place to place, buying movements for their year's requirements. A number of movements here, a few there. Such watch movements are then stamped with the names under which they are to be imported—and become eventually complete watches, some of which you may have seen while shopping or which you might even have had the sad experience of possessing.

Some of the finest watches sold in America are of Swiss manufacture and are completely made and assembled by skilled craftsmen in modern factories just the same as any fine American product. Notable among these watches are Gruen, Longines, Patek-Phillippe, Vacheron and one or two others.

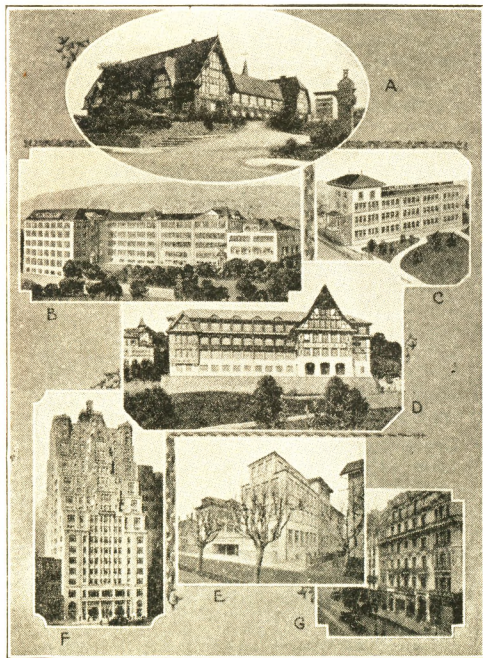
Fine watches are made in Switzerland and there are also fine watches made in America. But as there are very cheap

Swiss watches there are also American watches of cheap, unsatisfactory construction. Thus the important thing for the watch purchaser to determine is, not whether the watch is of Swiss or American manufacture but whether it is *essentially a good watch*—either American or Swiss.

Guild watches among the world's finest

Among the recognized reputable watch manufacturers the Gruen Watch Makers Guild holds the unique position of being the only *international* watch manufacturing organization—with factories on both sides of the Atlantic.

With five plants in Switzerland, manned by Swiss technicians, but operated under American methods and American management; with a modern gold case factory and assembling service plant at Time Hill, Cincinnati; with one of the largest platinum and diamond shops in America located in the very heart of the world's fashion center—Fifth Avenue, New York; with branch offices in Toronto, Los Angeles, New York, Berlin, Paris and Geneva the Gruen organization is international in manufacturing activities, as well in distribution and sales representation.



The International Gruen Organization — (A) Cincinnati, Ohio, plant; (B) Factory "A" at Biel, Switzerland; (C) Factory "V" at Villeret; (D) Precision Factory at Biel, Berne; (E) Factory "M" at Madre-Biel; (F) Fifth Ave. Platinum Shops occupy two floors in this New York building; (G) Paris, France, Headquarters

Most reputable Swiss watch manufacturers operate factories that are models of efficiency and scientific production methods. In the Gruen plants, for example, watch makers who can trace their ancestry back to guild masters of the medieval ages are working under modern methods, with the most up-to-date machinery available.

As in the huge automobile plants at Detroit, and elsewhere in America, where large production is made possible by absolute interchangeability of parts, so is the same system developed in the various Gruen standardization principles, it is interesting to know that each plant is devoted to the production of a particular type and character of Gruen movement.

Gruen has been manufacturing watches since 1874. Gruen was the first watch company to offer to the jeweler a complete standardized watch—case and movement perfectly fitted—as against the custom then in vogue whereby the jeweler purchased movements and cases separately from many sources and assembled them himself.

The first stem wind watch in America was a Gruen. Gruen pioneered and popularized the 16 size watch, now the standard size for railroad service.

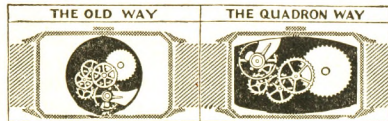
Among many other notable innovations and scientific developments introduced by Gruen were the VeriThin and Ultra VeriThin accurate watches made slender by a practical rearrangement of working parts.



By a scientific re-arrangement of parts, thinness is obtained in the Gruen VeriThin and Ultra VeriThin without sacrificing size or strength of parts or accuracy

Later came the Cartouche, a small rectangular wristlet and the Quadron, a smart strap watch for men, both having full size, rectangular movements filling the entire case space, utilizing this extra room for larger, stronger parts.

A new Gruen invention



In both the Quadron for men and the Cartouche for women Gruen rectangular movements fill the entire case space, providing larger, stronger parts, hence a new degree of accuracy

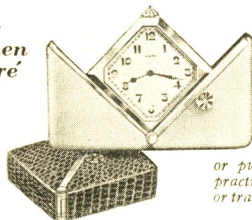
Gruen are specialists in the manufacture of small wrist watches and very thin

pocket watches. To make a large watch of railroad accuracy is not difficult whereas it is quite another problem and far more exacting and painstaking to be able to fashion small and thin watches of time-keeping accuracy.

Gruen makes a watch for every member of the family, a design and style to suit every preference at a price to fit every pocket-book.

Gruen completes that watch or that movement or that unit of the complete watch in the factory best suited for the work. Because of this principle, Gruen so nearly resembles one of the great industrial successes of America, that many people, after learning the history and present development of the Gruen Watch Makers Guild, have remarked "Gruen is the General Motors of the watch industry."

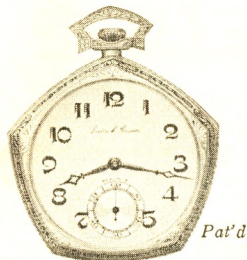
**The
Gruen
Carré**



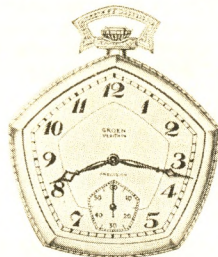
**For both
men and
women**

*A doubly use-
ful time-
piece. Carry
it in your
change pocket
or purse or use as a
practical desk, boudoir
or traveling clock. \$55
and up.*

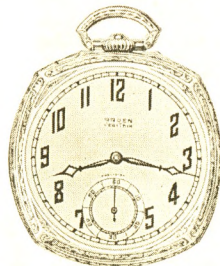
A few Gruen Pocket Watches



*Pentagon (280) Paladin model,
21 jewel Dietrich Gruen Extra
PRECISION Movement, \$250.*



*Gruen Pentagon (304),
VeriThin, 17 jewel
PRECISION movement, \$75.
Others \$75 to \$500.*



*Gruen Paris Square (117),
17 jewel movement, \$55.
With 17 jewel
PRECISION movement, \$60.*



*Gruen 17 jewel movement,
\$37.50.
Others from \$27.50.*

Interesting Gruen Wristlets



OSTENDE—a Gruen Time-keeping Baguette, 14kt solid gold case and mesh cord, 17 jewel movement, \$100.

NORMANDIE — a Gruen Timekeeping Baguette, 14kt solid gold case, 17 jewel movement, \$85.



Gruen Cartouche (394) 14kt solid gold Crown-Guard case, 17 jewel PRECISION movement, \$75.

Gruen NASSAU, 14kt solid gold case, with filled bracelet, \$67.50. With silk ribbon, \$60.



Gruen HAMPTON, 14kt solid gold case, filled bracelet, \$57.50.

Gruen CHELSEA, 14kt gold filled case and bracelet, 15 jewel, \$40. Other Gruen designs from \$35.



Gruen Diamond - set Watches



Gruen Baguette (4), solid iridium platinum case with silk cord attachments, set with 64 diamonds including 20 baguette-cut stones, 17 jewel PRECISION movement.

Gruen Cartouche (330), 18kt solid gold case, with 30 round and 2 baguette diamonds set in platinum, 17 jewel PRECISION movement.

Similar designs \$300 to \$500.



LONGUEVILLE—a Gruen Timekeeping Baguette, 14kt solid gold case and bracelet, 8 sparkling diamonds, 17 jewel movement, \$250.

TROUVILLE — a Gruen Timekeeping Baguette, 14kt solid gold case and bracelet, 2 diamonds, 17 jewel movement, \$165.

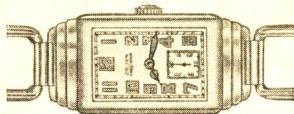


Gruen Cartouche (765), 14kt solid gold case, set with 4 diamonds, \$110.

Gruen Cartouche (783), 14kt solid gold case, set with 2 diamonds, \$85.

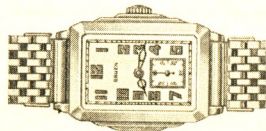
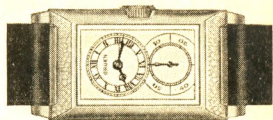


Wrist Watches for Men



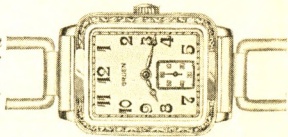
DARTMOUTH — Gruen
Quadron, with link band
to match, 17 jewel golden
PRECISION rectangular
movement, \$85.

Gruen Techni-Quadron
(74), 14kt gold filled
Crown-Guard case, rein-
forced with extra gold, \$60.



VARSITY — a popular
Gruen 14kt gold filled case
and woven band, \$55.
With 17 jewel movement,
\$60.

KENSINGTON — a smart
Gruen 14kt gold filled case
and link band, \$45.
Other Gruens from \$27.50.



My Watch

Date of Purchase _____

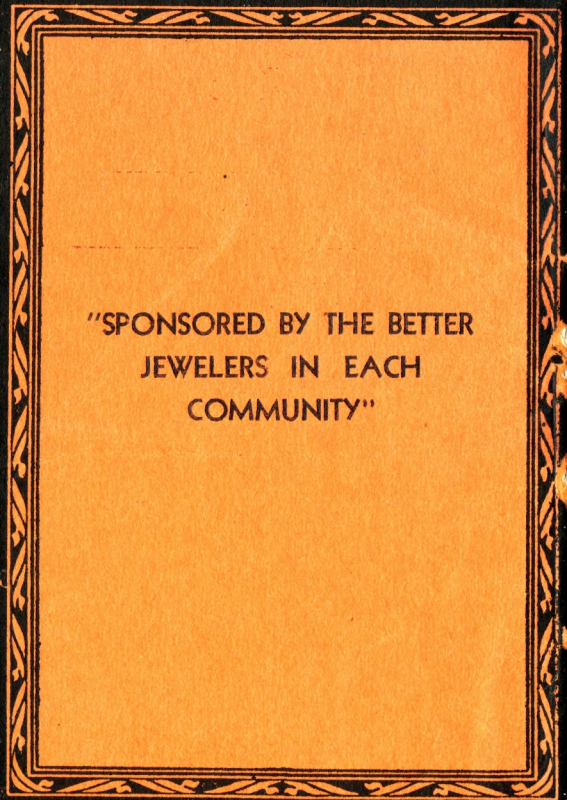
Movement _____ Case _____
No. _____ No. _____

Bring this watch back for
free inspection _____
Date _____

Date Set	Gain or Loss	Remarks

My Name _____

Address _____



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JEWELERS IN EACH
COMMUNITY"