

THREE SWISS FIRMS IN THE FOREFRONT OF WATCHMAKING TECHNOLOGY AND COMPETITION

At a time when technical and commercial evolution is speeding up, at a time too when competition with foreign rivals is growing keener every day, the world launching of the Chronomatic shows the determination and ability of our industrialists to be really competitive—with all that this implies in the way of dynamism, forcefulness and even aggressiveness.

In this spirit, Breitling, Hamilton-Büren and Heuer-Leonidas, in technical cooperation with the Dubois-Dépraz Mechanism Factory Co. Ltd., Le Lieu, decided to join forces and resources, in an atmosphere of mutual trust and wholehearted cooperation, in order to plan, produce and distribute under a joint name this new key product of the Swiss watchmaking industry. In short, these firms have shared all the expenses and work involved in the creation and development of a new and highly technical product, right from the "ébauche" stage. On the eve of distribution, which each of these firms will handle in its own way, these three firms have proved that, without sacrificing their independence and individuality in any way, it is possible to forget differences and work together towards the creation of an entirely new product.

Once again, the risk paid off—as these firms have shown by their achievement. They are to be congratulated!

Chronomatic is outstanding in more ways than one.

First of all because it is the result of cooperation between sectors—involving a "manufacture", two "établisseurs" and a mechanism factory—an example which one can only hope will be followed by many others.

Next, because the Chronomatic is proof of the



vitality of the firms that created it—isn't it said in fact that firms are as old and as healthy as their products?—and which did not hesitate to develop a new, absolutely modern product, intended for the most exacting buyer.

Chronomatic has now reached the ultimate stage: the market. It has its place there, as one of the standard-bearers of the

Swiss watchmaking industry.

Finally, to be competitive is also above all to create competition, to force the breach and forge ahead, and not simply to accept competition and react afterwards. Showing proof of courageous realism, this is the line that Breitling, Hamilton-Büren and Heuer-Leonidas have taken.

A handwritten signature in dark ink, appearing to read "Gerard Bauer".

Gerard Bauer
President of the Swiss Federation of
Watch Manufacturers' Associations

THE POT OF GOLD ON YOUR DOORSTEP!

When one really thinks about it, one has to agree that there are only two kinds of watches of major importance today :

□ the self-winding watch
□ and the chronograph
Unfortunately, so far, no one has ever been able to wear the two at once!

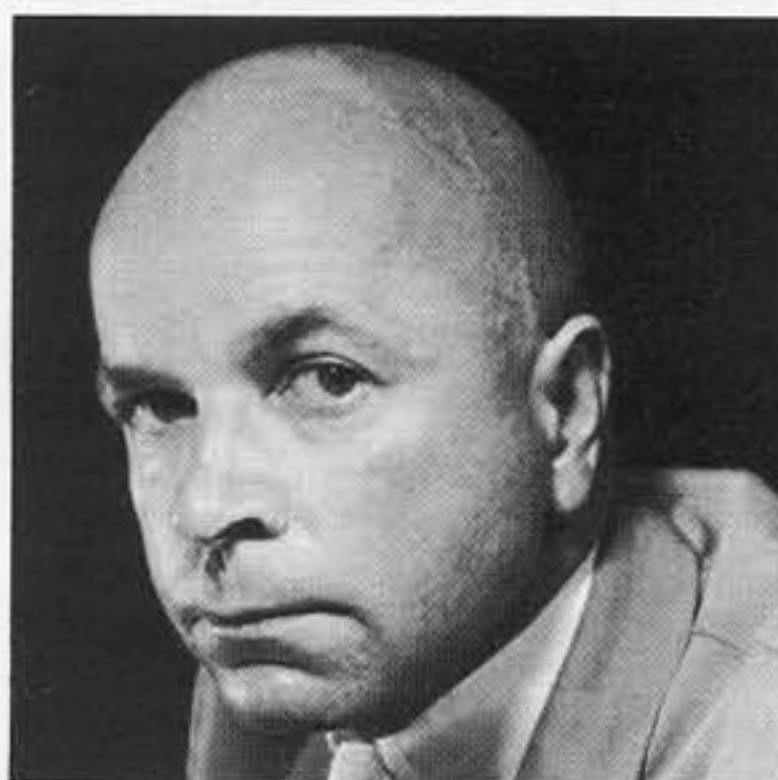
One cannot help being divided in one's loyalties therefore, and the pleasure of possessing the one is necessarily tinged with regret at having to do without

the other! Hence the rough division of the world market into two categories of young men, those who would never dream of choosing a watch that had to be wound by hand, and those who are still prepared to do so provided their watch is more than a "sad witness to the flight of time" – provided, that is to say, it is a timepiece capable of performing positive tasks. These two types of men asked nothing better than to be able to forget their differences. And today this has become possible! The self-winding watch and the chronograph are now one and the same thing.

The millions of men who swear by the self-winding watch will at last be able to enjoy the possibilities offered by the chronograph, while the millions of chronograph fans will at last be able to know the joys of self-winding! – To these must, of course, be added the millions of men who wear just any old watch provided it tells the time, and who will now be forced to admit that they are doubly behind the times.

One can just imagine the field day advertising and psychology are going to have with this technical « merger » resulting in the birth of a new product for watch wearers all over the world!

It is a revolution, which is obviously going to benefit first of all those responsible for it. And this is only fair. But this short-term view is only a minor aspect of the problem. In fact the invention of the self-winding chronograph means that Swiss prestige will become more firmly ensconced than ever in its privileged position. Once again we have direct proof of Swiss know-how in matters of horological technique.



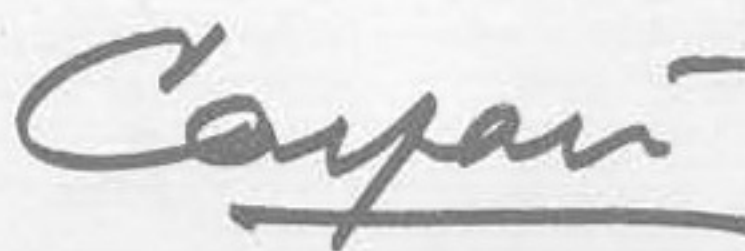
Even though Switzerland does not perhaps have access to all the resources available to the laboratories of the great powers, the fact remains that Switzerland was nevertheless the first to launch this new all-purpose watch answering the everyday needs of millions of men who, because of their business, their sport, their pleasures and their studies, want to own a self-winding watch that is also a chronograph.

In this connection, it could also be stated that the advent of the

self-winding chronograph allows Swiss industry to reassert its watch-making supremacy, which cannot fail in the long run to benefit all Swiss watch manufacturers.

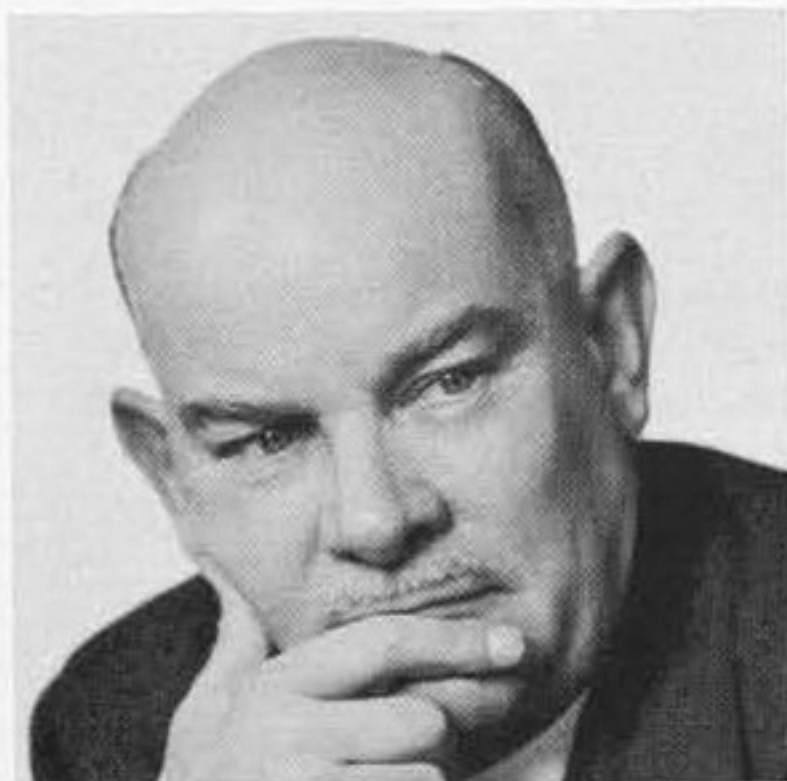
Therefore – and the three manufacturers of the chronomatic are the first to admit it – the promotion of the self-winding chronograph goes beyond their purely personal interests. It gives them the moral satisfaction of establishing the reputation of Swiss watch-making at a new level of technological superiority.

And it is important on the national level too, since in fact the continuity of a flourishing export trade depends uniquely on foreign public opinion concerning our know-how. Swiss know-how is important, but it is equally important for the rest of the world to know how superlatively good it is!



Georges Caspari
Advertising Agency
Genève

BREITLING GENÈVE



The event we are announcing here is a source of tremendous satisfaction to our firm and myself—above all because it has been accomplished in an atmosphere that shows just how radically times have changed!

Together we have achieved the ultimate in difficulty—and I don't mean creating a watch, but working as a team!

It has been proved therefore that it is possible for three watch firms, without any of them abandoning their identity, to achieve in common what none of them was able to attempt alone.

The archeology of watchmaking interests no one. Let us simply say that the prospects of our firm, which was founded by my grandfather about a hundred years ago, started to soar with the flight of the first planes. For thirty years we have helped to set the standards of aerial chronometry. Our aircraft chronograph has grown in perfection as planes have grown in complexity and refinement from the early propeller-driven plane to today's super jets. Our firm is now the recognised supplier for world aviation, and pilots swear by our Navitimer.

At the same time, the technological revolution and the growing popularity of sport have encouraged us to make instruments with increasingly diverse functions.

We have created the Chronomat, which is a chronograph, and the Chronoslide, which is a timer, both of them equipped with a circular slide rule. We have produced a remarkably complete range of Top Time chronographs, including the first collection of square and shaped creations.

In doing so, we have met with the enthusiastic support of the young who represent a tremendous market, and we have at the same time crossed the threshold of Fashion, to the point even of intriguing the feminine clientele.

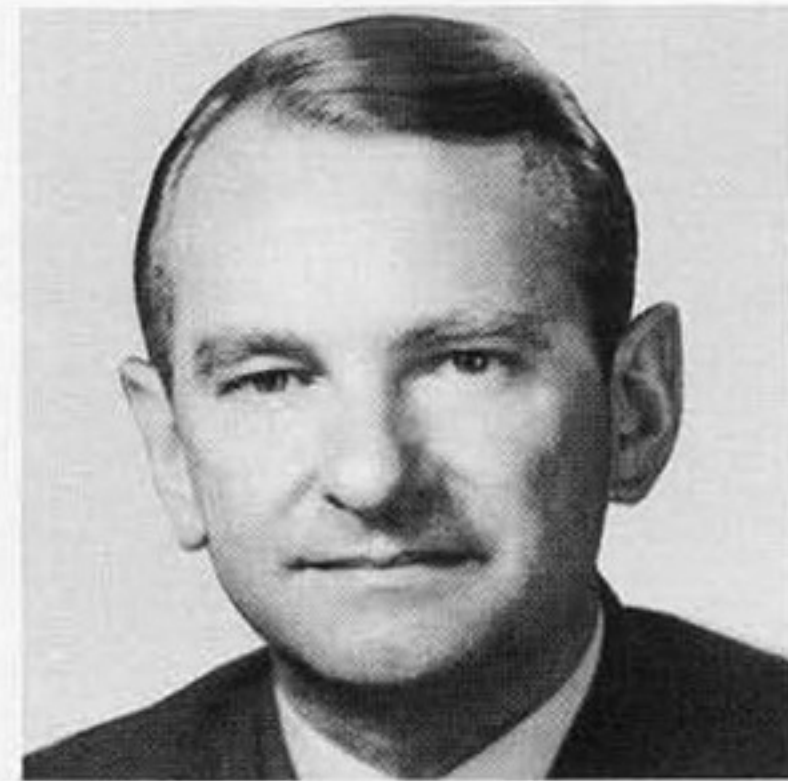
Finally we have just entered the field of electronics by putting three instruments on the market for measuring short intervals of time, the Electrosplit which is a timer with digital display controlled by a quartz generator, its complement the Printer which records the times on paper and finally the Minisplit which is a veritable « mini » version of the Electrosplit — the smallest and the lightest of the electronic timers with digital display.

Consequently the joint launching—with our friends at Hamilton-Büren and Heuer-Leonidas—of the first self-winding chronograph represents our crowning achievement.

Nothing on this earth is ever complete, but certain landmarks shape the future of a firm. We have been living a remarkable experience and we are sure you will forgive us our elation.

Willy Breitling
President
G. Léon Breitling S.A.
Genève

HAMILTON BÜREN



Is it really so difficult for watch-makers to get on well together? I sincerely think we have succeeded in showing that the contrary is true. And allow me to add that, from the point of view of business friendship, our close cooperation is a source of great joy to us all.

I am speaking in the name of Hamilton-Büren.

Büren, as you know, is the charming little town in Switzerland where our firm first saw the light of day and whose name it has borne — for a hundred years.

We feel strong ties of affection for it. It was at Büren that our firm took root and began to prosper.

As for Hamilton, this is now the driving force behind our commercial development. Our merger in 1966 was the mutual reward for a long tradition of loyalty, since Hamilton has always absorbed under its trademark a large part of our output of movements. In short, Hamilton made it possible for us to achieve the dimensions of a large modern firm. Our factory—a very large one with some 400 employees—in which our watches are made from start to finish, rose suddenly 15 years ago to the rank of pioneers by creating the first automatic calibre with a sunken rotor.

You know our Büren planetary rotor, which made it possible for the first

time to place an extra-slim self-winding watch on the market. We also granted licences to Piaget and Universal while using it under our own trademark Büren in our Super-Slender, then Intramatic models which already foreshadowed, but as an unattainable dream, the future Chronomatic, which we are launching today.

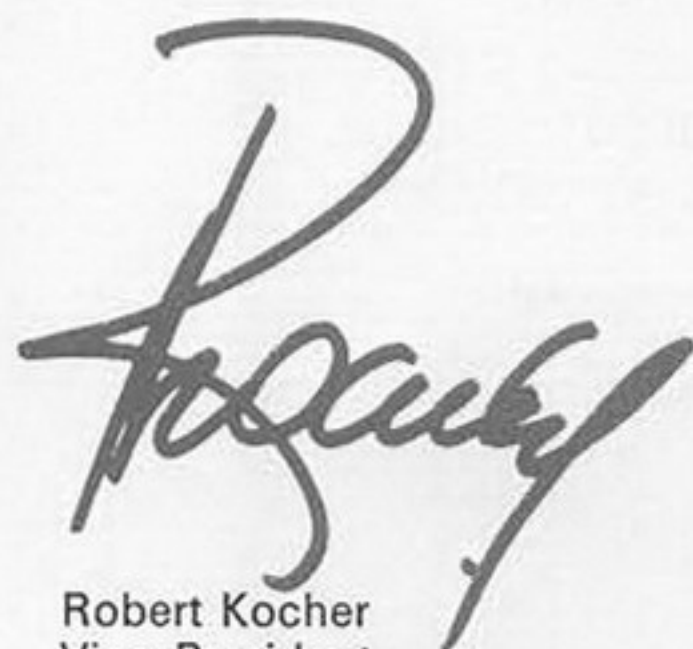
We have manufactured over 2 million movements with planetary rotors, and it is not surprising that this calibre should have caught the imagination of chronograph manufacturers. For they too had their problem: without an ultra-slim self-winding movement it was impossible to make a slim chronograph!

Then there occurred what is happening more and more in industry today: the most dynamic decided to pool forces. Breitling and Heuer-Leonidas both approached us and we agreed to join together to provide the necessary funds for starting research on the prototypes.

This gave my brother and Büren's engineers an opportunity of showing their true worth as inventors. They found the magic formula making it possible to combine the two movements: the self-winding and the chronograph, in such a way that after-sales problems were solved to the satisfaction and relief of watch repairers. I shall say no more here; my brother explains it all later...

We were therefore able to present to our friends Willy Breitling and Jack Heuer a solution which sent us all wild with excitement: we realized that together we had just solved the problem of the self-winding chronograph.

And we could hardly wait for the day—now here—when we could at last present to the world the fruit of our wholehearted cooperation.



Robert Kocher
Vice-President
General Manager
Hamilton International S.A.
Bienne

HEUER LEONIDAS



Why complicate life as competitors when it can be made so much more enjoyable as partners?

We never had any hesitation in making this business philosophy our own. Now you can see the results! I represent the 4th generation of Heuers, in other words the 4th relay in a great industrial competition which is now entering the field of electronics.

My predecessors forged the sound foundations which have enabled us to become the leading firm specialized in the measurement of short time intervals, for we produce

- ☐ over a third of the whole Swiss output of lever and pinlever stopwatches,
- ☐ and we are at present one of the big three in the field of chronographs.

Our really rapid growth began in fact after the war. The vital impulse was marketing. Opening our own sales branch in New York in 1959 revealed to us the full importance of systematic marketing.

Thus we were the first to coordinate research, the product, the distribution network and the customer in our specialized sector. Since then, every technical advance has been converted into a commercial advance.

The systematic application of modern marketing methods has influenced our annual rate of growth, which by

far exceeds the average of 5% for the watchmaking industry as a whole since it is close to 25% over the past ten years!

Marketing immediately showed us all the advantages to be gained by imposing a firm's trademark and creating the right image. Supplying watches is easy, putting a name to them is essential. It is therefore exclusively under our trademark Heuer and, for our pinlever products, under the name of Leonidas that our instruments for measuring short time intervals are marketed throughout the world.

Known first of all for the manufacture of lever stopwatches Heuer then identified itself with the wrist-chronograph (Autavia, Carrera, etc...). Now we are tackling the pinlever stopwatch market where we are gaining an increasingly large share of the market from manufacturers who do not pay sufficient attention to the importance of the trademark. And at the same time, we are aiming even higher by going in for electronics and quartz timers, which are taking over technologically in the science of short time measurement.

In fact, we are winning our fair share of the market in all 4 slices of the pyramid and our prices range all the way from \$ 10.— to \$ 10,000.—.

Our factories at Bienne and St. Imier have been fully re-equipped, modernized and automated; and our firm, which employs over 200 people in Switzerland, has 3 branches abroad: Heuer Time Corporation in New York, Heuer Electronics Corporation in Norwalk, Connecticut and Heuer Time Limited in London.

In the name of them all, I express here the deep satisfaction we feel in cooperating as we have done with our friends at Hamilton-Büren and Breitling in the spirit of mutual confidence and friendship which has resulted today in the wonderful achievement represented by our Chronomatic.



Jack W. Heuer
President
Heuer Leonidas S.A.
Bienne

CHRONOMATIC



The first self-winding chronograph

Many chronograph owners were so delighted with their watch that the only thing they found needed to make it perfect was a self-winding mechanism.

And many of those who would never wear anything but a self-winding watch have for a long time wished that their watch had a few push-buttons so that they could measure short intervals of time accurately.

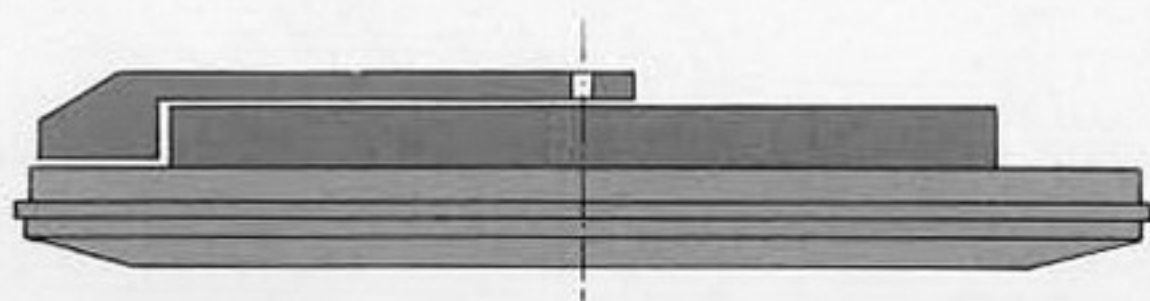
For only someone who can measure time is master of it! Only someone who owns a self-winding watch is independent of time. The Chronomatic is the first watch to make this dream come true by achieving a synthesis of those two essentially complementary mechanisms: the most up-to-date chronograph combined with the most modern selfwinding movement.

The self-winding watch

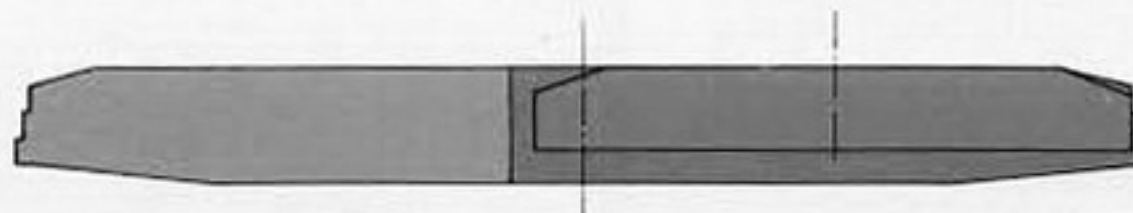
In order to make an ordinary watch self-winding, a weight—that moves with every movement of the wrist—has to be fitted to the mechanism. A reduction-gear transmits the movements of this weight to the barrel arbor, so that the mainspring is automatically wound to the optimum tension. The rotor has proved to be the most effective organ for transmitting the movements of the arm.

There are different ways of fitting the rotor in the watch movement.

Traditionally, it is placed on top.



In 1954, Büren was the first firm to place the rotor right in the heart of the movement. This invention is protected by patents that are still valid.



The rotor housed inside the movement quickly proved to be the biggest step forward in the design of selfwinding watches. Today, the slimmest self-winding watches in the world are all made according to this principle. Since 1957 we have produced over 2 million of them. Including the rotor in the movement is the only way to make slim cases without having to compress the organs of the watch. Today the sunken rotor is no longer a novelty. It is a well-established element of design essential to the success of the elegant watch.

On the dial side, the movement is fitted with a calendar mechanism. Its patented system for the rapid changing of the date has proved its worth for many years now. It simplifies the first setting of the date and, automatically and quickly, changes the date at midnight.



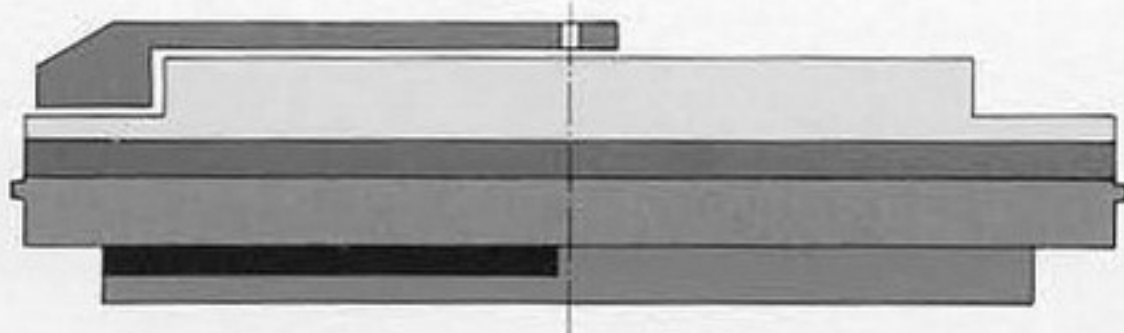
As all the vital organs of the watch are visible, servicing and repairs present no difficulty for the watchmaker.

The chronograph

In order to turn a watch into a chronograph, the axle of the seconds-wheel must be fitted in the movement in such a way that it can be connected, or released, then set back to its initial position, at will. A minute-totalizer needs to be added, which can also be completed by an hour-recorder. Up till now, the hour-totalizer has always been fitted on the dial side of the chronograph.

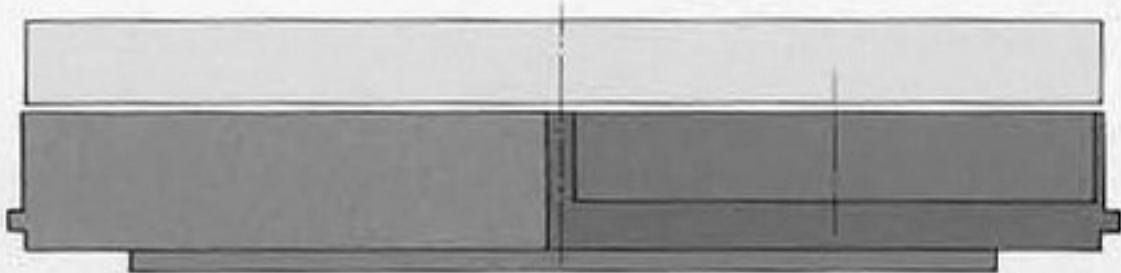
A self-winding chronograph

If we want to make a chronograph out of a selfwinding watch equipped with the usual central rotor, we have the following diagram :



This diagram shows clearly the complexity, not to say thickness, of such a solution. Now the firms of Breitling, Heuer and Dubois-Dépraz have succeeded in producing a chronograph mechanism which houses all the counters – seconds minutes and hours – on the same side as the bridges or bars. This invention is of the greatest importance. In fact, the chronograph mechanism forms a separate unit, which can be assembled and checked quite independently of the watch movement.

In a matter of fraction of a second this patented mechanism carries out the order transmitted by one of the push-buttons.



Rotor	= blue	Hour-Counter	= black
Chronograph	= yellow	Self-Winding	= green
Calendar	= red	Movement	= brown



The various operations of the Chronomatic are commanded by two push-buttons. On first pressing button A, the seconds-hand and all the totalizers start up. A second pressure on the same button stops the seconds-hand and the totalizers. This operation can be repeated as often as required, making it possible to time an event by breaking it down into its separate actions. Pressing on button B sets all the totalizers back to zero.

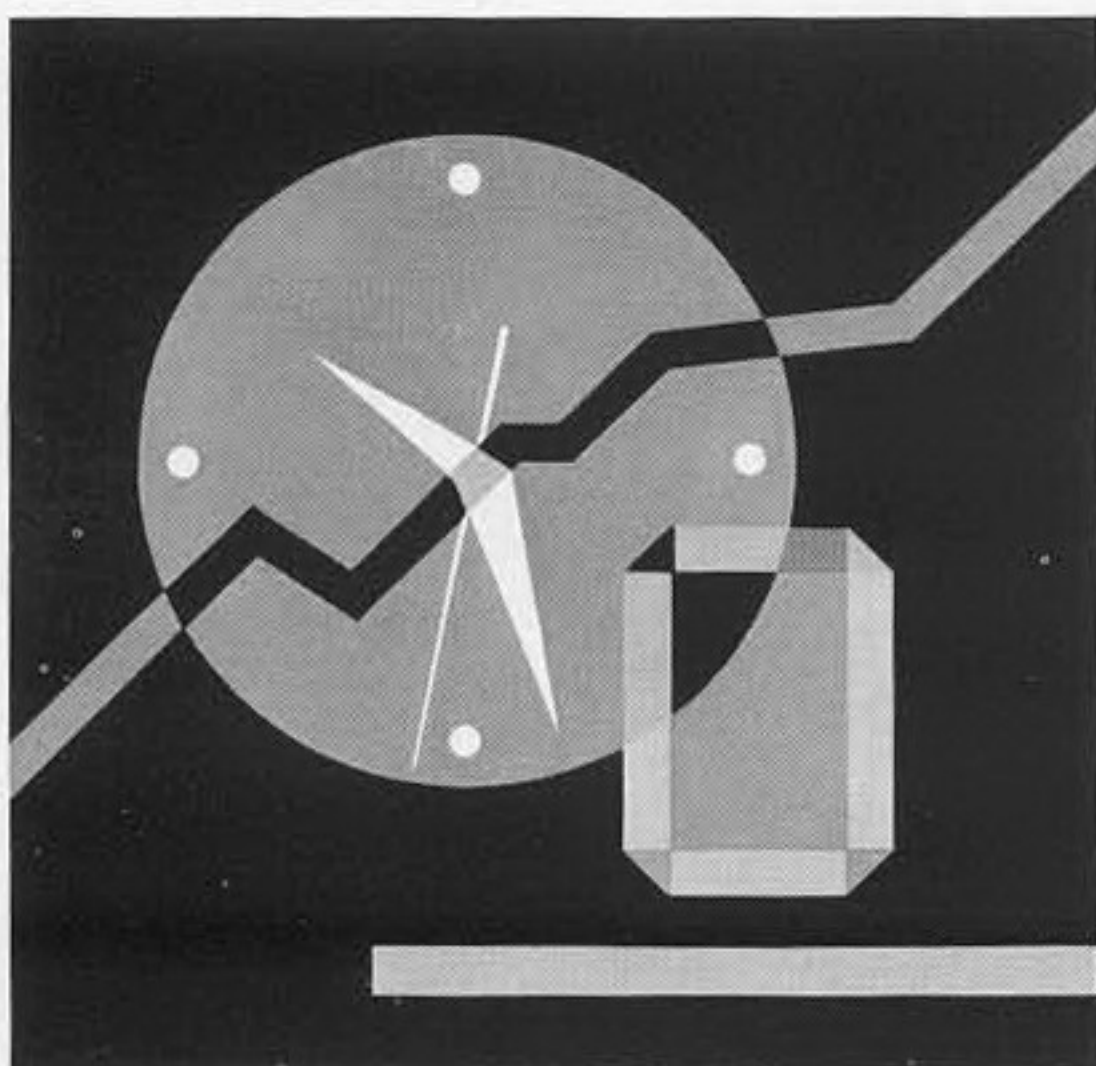
The Chronomatic

The combination of the Büren self-winding movement and the new chronograph made by Breitling's and Heuer's engineers and Gérald Dubois of Dubois-Dépraz has resulted today in the creation of the first and only self-winding chronograph with a planetary rotor.

The winding-crown has been placed at 9 o'clock to emphasize the fact that this watch needs no winding and that it is only very rarely necessary to set the time.

The Chronomatic is independent of any source of energy and supplies the maximum of information in hours, minutes and seconds, with all the possibilities of measuring short intervals of time down to 1/5th of a second, and with the addition of the date.

Hans Kocher
President
Büren Watch Company S.A.
Büren s/Aar



Jeweler's World News Round-up

SWITZERLAND

Creation of a company for research and development of laser uses

► A limited company with a fully paid-up share capital of 62,800 francs was recently established in Neuchâtel under the name of Lasag S.A., Swiss inter-industrial group for laser applications. For the moment, it groups 17 shareholders in the watch and precision tool industries as well as two applied research institutes. Chairman of the board is Mr. P. Portas, of Geneva, and vice-chairman is Mr. A. Auwaerter of Balzers. Management has been entrusted to Messrs Dinichert, director of the Swiss horological research laboratory (LSRH), Neuchâtel, and Mr. K.-P. Meyer, director of the Institute of Applied Physics of Bern University (IAP).

Lasag S.A. has been formed with the aim of promoting industrial applications of the laser, carrying out related research and development and undertaking the development of laser installation prototypes. The company can also carry out industrial pilot tests for its founding members.

Shareholders of Lasag S.A. have already begun to provide the company with the necessary basic equipment. In addition, Lasag S.A. will benefit from the scientific expertise of the two science institutes directly interested in its activities. For the IAP is mainly involved in basic laser research while the LSRH has for many years been equipped with advanced equipment for metallographic analyses.

Shareholders are to be informed each time new endeavors are planned so as to bring together all interested parties and to provide them with the opportunity of benefiting from the developments and research.

Two watches in one

► The Zenith and Movado watch companies have achieved an extraordinary feat in combining two precision watches into one. It comprises a high-frequency automatic watch with calendar along with a timer-chronograph allowing time measurements to the tenth of a second. It is equipped with an hour and minute timer. This is the first watch of its type in the world.

The extraordinary feature is that both these mechanisms fit in a space

smaller than that of a traditional chronograph. This model has all the advantages of a standard watch plus the date, automatic winding and the chronograph with timers and calendar.

Its chronometric precision is guaranteed; two models, an extra-slim gold and a super-waterproof steel model will be marketed.

Ebauches S.A. and electronics

► A new company, "Ebauches Electroniques S.A." has just been formed in Neuchâtel with a capital of 3 million francs, entirely controlled by Ebauches S.A. This company will concentrate on the manufacture of electronic components for watchmaking.

Manufacturing operations will begin in 1970. They will be totally unlike those of the other companies in the Ebauches group as the firm, using advanced production techniques, will make electronic modules the manufacture, design and raw materials of which will be completely different from those used in traditional watchmaking.

Electronic watch products will undoubtedly play an ever more important role in our industry. It was therefore advisable to reach an early decision and to plan for the future with adequate means in order to protect the Swiss watch industry's leadership in world markets.

A new watch company

► A new company, called Accurist S.A., has been formed in La Chaux-de-Fonds. It is an autonomous company which is to handle the interests of Accurist Watches Ltd., London. The brands marketed in England by Accurist Watches Ltd. are: Accurist, Regency and Old England; the latter, creator of "Go-Go" watches is also active internationally. Accurist manager is Mr. Raymond Musy.

Mergers

► A new research company has just been formed by the Büren, Certina, Rolex and Roamer watch companies under the name of Neosonic S.A. Head offices of the new company are in Bienne. It has a share capital of 160,000 francs. Mr. Philippe Kurth, of Certina, has been named chairman of the board.

Under contract to Neosonic's founding companies, the Industrial