

[54] **COMBINATION OF A WRIST WATCH AND
A CIGARETTE LIGHTER**

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[58] **Field of Search** **431/253**

[56] **References Cited**

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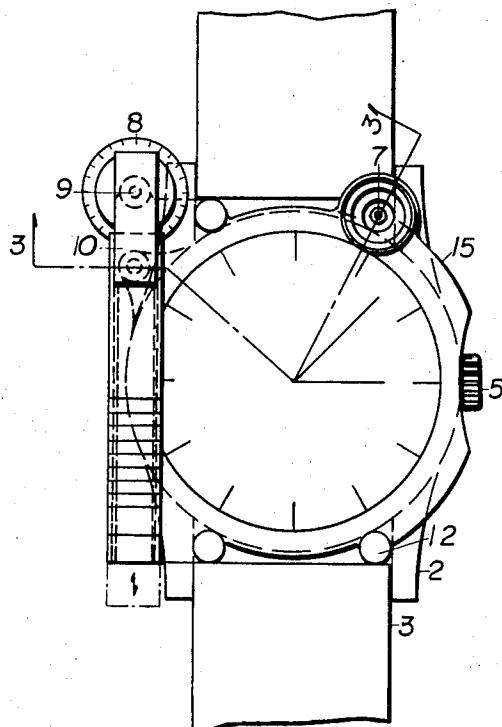
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[57]

ABSTRACT

The Watch Match invention is an improvement on a wrist watch by attaching it to a cigarette lighter to obtain many obvious advantages. The invention clamps fuel tanks over the top and under the bottom of the watch case and arranges the lighter ignition mechanism on the left side at the top with the refill fuel valve on the right side at the top. The flint replacement screw with spring and the screws which connect and clamp the fuel tanks together enter from the bottom side, out of view, when the Watch Match is worn. Gas is favored over liquid fuel for safety reasons. Flint or electric ignition systems are included. The Watch Match cannot be mislaid when worn, and is then available for common use in time telling or in igniting smoking materials as well as in emergencies to supply light in the dark or to ignite a fire. With the Watch Match one is never without a match.

1 Claim, 3 Drawing Figures



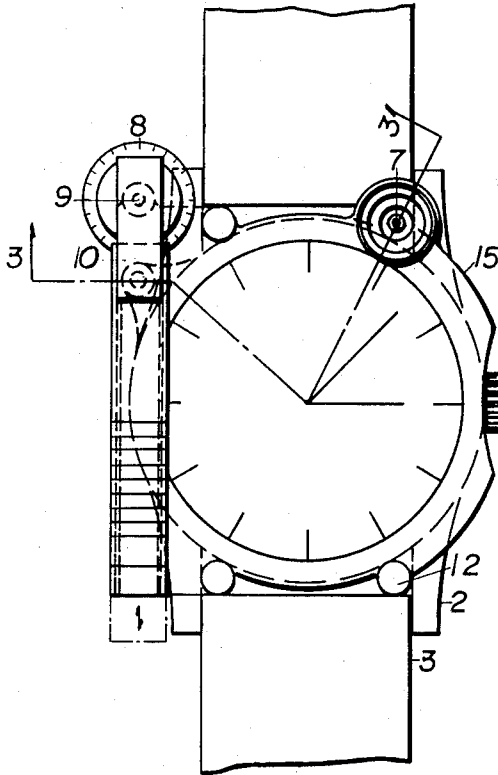


FIG. 1

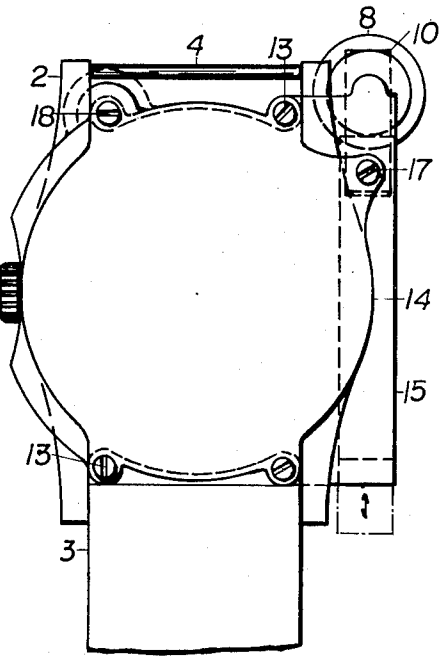


FIG. 2

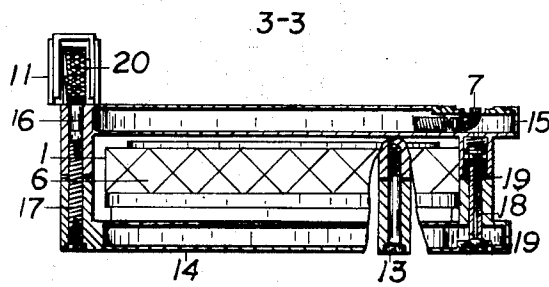


FIG. 3

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COMBINATION OF A WRIST WATCH AND A CIGARETTE LIGHTER

The instant invention relates to a new, useful and unique attachment of a wrist watch to a cigarette lighter as an improvement over either one separately. In the attachment, the lighter is always instantly available for use on the watch. No groping search through pockets or purse is necessary to find the lighter.

It is a primary object of the present invention to provide an instant flame at the wrist to give out light to see the way or read the time, map or paper in the dark, or to ignite combustible material in a pipe, cigar or cigarette, or even to kindle a fire in an emergency.

In conjunction with the above primary object, it is also a significant object of the instant invention to provide an improvement in a lighter that fits easily on a wrist watch without interfering with the watch function or marring the watch case in any way.

Also, a general objective permits utilization of the invention with modern type watches, actuated by a woundup mainspring or energy cell which, in turn, powers a balance wheel, tuning fork or crystal, or a no hands face with a rectangular time record digital read-out window display, allowing an increase in the size and hence, capacity of the top ring tank.

Likewise, a significant object of the instant invention is to use a safe tank filling fuel when refueling on the wrist for the lighter like gas.

A further object of the instant invention is to provide the lighter with either a flint spark or electric ignition for the fuel.

Since liquid fuel in excess when filling or by leakage might infiltrate the works of the watch, or spill on the wrist, the danger of excessive heat to the sensitive watch mechanism, case and crystal as well as of burns to the hair and skin of the user, rule out the use of liquid fuel in the Watch Match unless refilled in a replaceable tank.

Basically, the instant invention presupposes the fact that the owner of a wrist watch wishes to buy a Watch Match lighter to fit the watch and be secured to it by small screws from the backside, located in holes in the disc tank which fits under the watch case. In this arrangement, the multiple screw fastening of the lighter to the watch case is hidden from view, and from all appearances, the Watch Match improvement is a single unit. The screws are located at the four corners between the rim of the watch case and the lugs that extend outward to accommodate the strap pins and the pins and strap loops.

Likewise, the instant invention frees one from the frustrations of a misplaced or lost lighter, and saves the time spent in searching through pockets of the countless articles in women's purses, because the Watch Match is always in one place, ready to serve an instant need for a light or to ignite.

These, together with other objects and advantages which will become subsequently apparent, reside in the details of assembly and operation as more fully herein-after described and claimed, reference being made to the accompanying drawing forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIG. 1 is an enlarged top view of the assembled Watch Match;

FIG. 2 is an enlarged bottom view of the assembled Watch Match; and

FIG. 3 is an enlarged cross-sectional view taken on planes passing through section line 3—3 to produce what is essentially a broken open side view of the assembled Watch Match.

Referring now specifically to the drawing in FIGS. 1, 2, and 3, the wrist watch case 1 has four lugs 2 for attachment of the strap ends 3 shown broken off and held in place by pins 4 and a stem 5 for winding the watch works 6 and setting or setting alone in automatic watches. Superimposed on the wrist watch is a properly-sized Watch Match lighter, generally of wrist watch contour shape, showing fuel fill valve 7, flame adjustment wheel 8, flame fuel port 9, snap-back cover 10, thumb actuator 11, boss 12 for fastening screw 13 to secure disc fuel tank 14 to the top ring tank 15, flint 16, flint spring screw 17, gas passage screw 18, gasket 19 to curb fuel leakage and rasp wheel 20 used with the flint ignition system. The top ring tank is essentially a torus of very flattened elliptical section with roughly the perimeter of the wrist watch face as its directrix with added bosses, made from pressed metal in top and bottom halves, joined along the edges, ground smooth, pickle bathed, and then plated, finally drilled and tapped for the filling and flame fuel port valves, ignition mechanism anchorage and bosses for fastening screws or alternate snap-on-snapoff clips and gas passage screw.

To assemble the Watch Match to the wrist watch, first place the top ring tank in position over the watch face with the flame adjustment wheel to the left top and the fuel fill valve to the right top side, allowing the four bosses to slip into the recesses between the rim of the watch and the strap loops at the four corners formed by the lugs and the rim of the watch case. Next turn the watch over, holding the lighter top in position. Now place the fuel disc tank on the back of the watch, lining up the screw holes with the bosses already in position as parts of the lighter top. Insert and draw up loosely the gas passage screw opposite the flame fuel fill valve above. Then insert the other screws. Note that the flint spring screw is inserted loosely opposite the rasp wheel above inserting a flint. Now draw all screws up snugly to secure the disc fuel tank to the top ring tank and around the wrist watch. The gas passage screw when drawn up tight opens a fuel valve in the bottom of the top ring tank and allows fuel to flow into and fill the disc fuel tank to provide more fuel tank capacity. When this screw is loosened to remove the disc fuel tank in dismantling for watch repairs, the fuel valve closes automatically. No direct connection is made to the wrist watch case in any way in assembly so that no preparation of the wrist watch case is necessary, nor is the wrist watch damaged or marred by being connected to the Watch Match of proper size. To dismantle the Watch Match, reverse the above assembly operation.

To operate the Watch Match first fill the lighter with fuel, then slide the thumb actuator toward you which causes the snapback cover to uncover the flame fuel point, while spinning the rasp wheel across the exposed end of the flint, producing a spark which causes ignition of the escaping fuel which instantly produces a flame in the atmosphere. With the electric lighter this action makes a circuit connection from a battery source which produces the glow from a resistance element or the make-break spark of a switch, all of minia-

ture size, to ignite the fuel. The length of the flame may be adjusted by turning the flame adjustment wheel with the index finger. After use the thumb actuator is released, allowing the snapback cover to close, extinguishing the flame. To replace the flint, remove the wrist watch from the wrist and unscrew the flint spring screw, being careful not to lose the spring which may fly out as the screw is removed. Then shake out any residual of the old flint. Insert a new flint and the spring and the screw, tightening to produce a spark with an easy stroke on the thumb actuator.

Generally, the metal case of the lighter is made of metal and chrome, silver or gold-plated or enameled to match the watch. It may also be set with semi-precious or precious stones on the face to suit the vanity of the user.

Some of the many advantages of the improved lighter in a wrist watch attachment enable the user by use of the small flame light to see the way in the dark in an emergency to avoid obstacles and prevent falls and injury, to read print or the time on the face of the watch in the dark, to protect the watch crystal from scratches and breakage and to avoid the common habit of misplacing the lighter in a pocket or a purse.

From the foregoing, it will be appreciated that a unique attachment of a wrist watch and a properly-sized Watch Match has been devised by means of a top ring tank and ignition mechanism and a disc fuel tank, clamped at the top and the bottom of the wrist watch case respectively but without any direct connection to the wrist watch case being required. Incidentally, while not detailed above, a Watch Match of proper size can be fitted to women's as well as men's wrist watches, to

pocket, pendant, ball and double-faced watches as well as to desk, travel and alarm clocks. Also, the ignition mechanism may be an electric battery-powered high resistance wire or sparking device instead of a mechanical flint friction sparking device.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact fabrication and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to as, for example, lighters that simply snap on and snap off the watch case, single fuel tank lighters for top or bottom side, other locations of the ignition mechanism, prefilled, reuseable liquid fuel tanks and a special wrist watch case incorporating all fuel tank and spark mechanism features in new models featured from time to time, all falling within the scope of the invention as claimed.

What is claimed as new and useful is as follows:

1. In combination with a wrist watch, a lighter comprising a first tank of annular configuration, a second tank configured as a disc, means provided for fluid communication between said tanks, means for clamping said tanks respectively to the top and bottom sides of said wrist watch, the first tank having a flame fuel port, ignition means positioned on said first tank opposite said fuel port with automatic valve fluid communication means to said second tank positioned on opposite side of said wrist watch, and clamping means for securing said tanks to said wrist watch case.

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