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April 22, 1969

H. B. HULL

3,440,635

POLICE ALARM

Filed June 28, 1965

Sheet 1 of 3

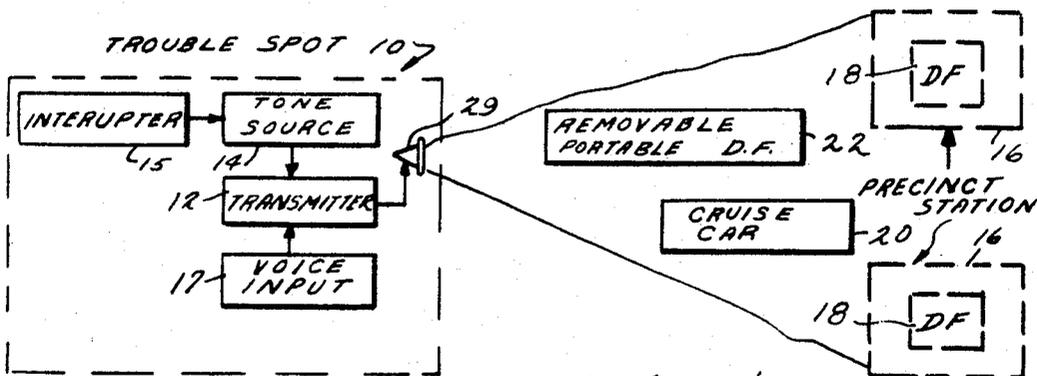


Fig. 2.

Fig. 1.

Fig. 5.

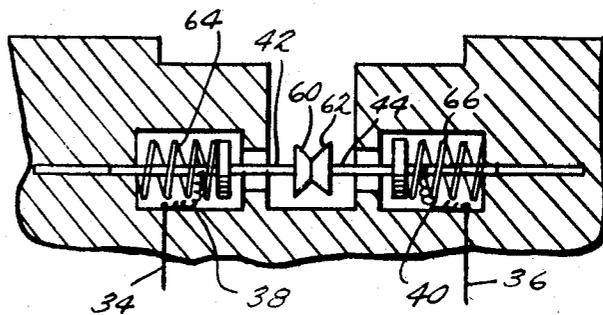
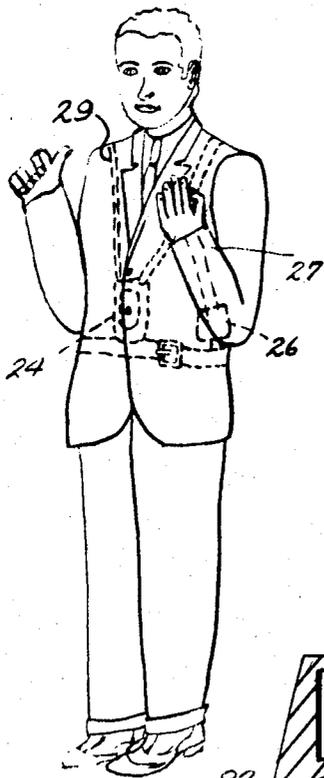
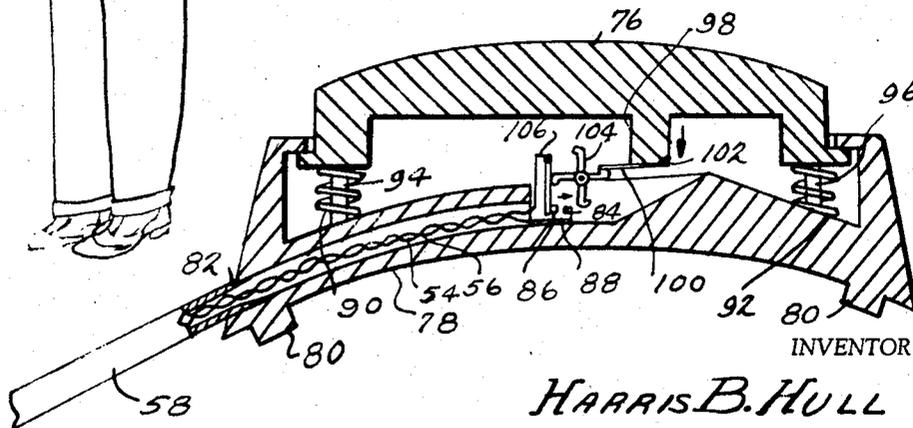


Fig. 3.



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Fig. 4.

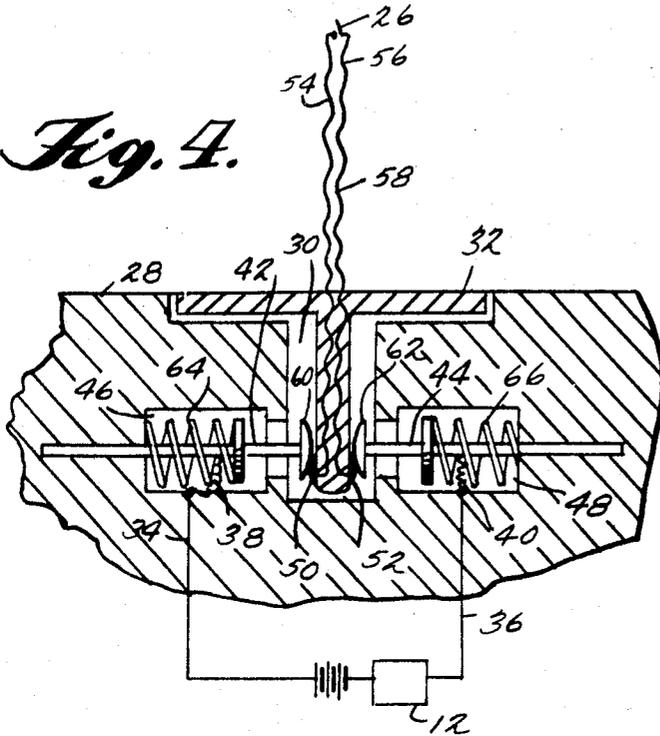


Fig. 6.

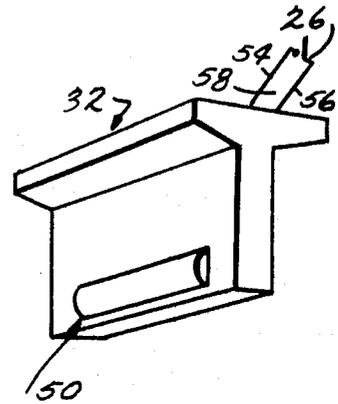


Fig. 7.

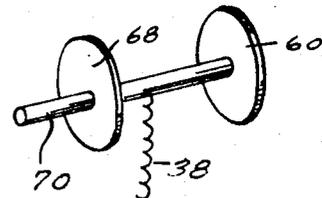
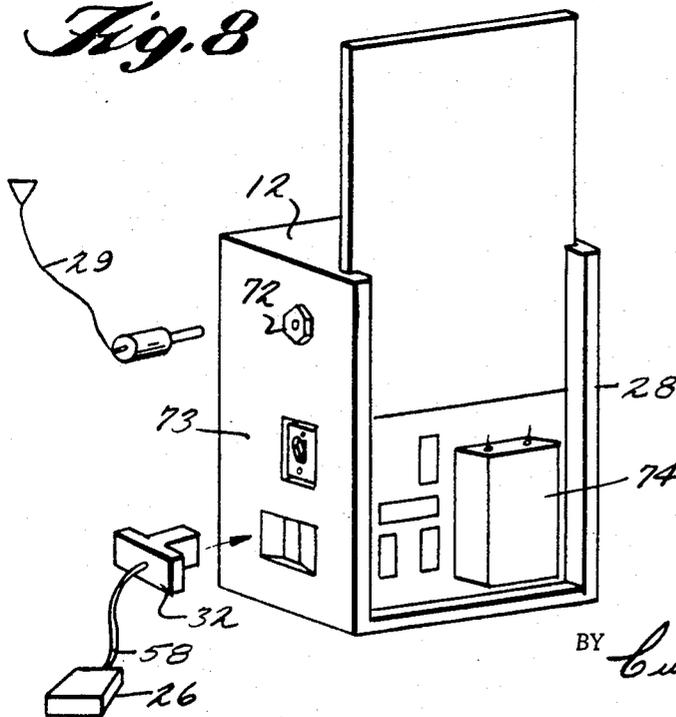


Fig. 8.



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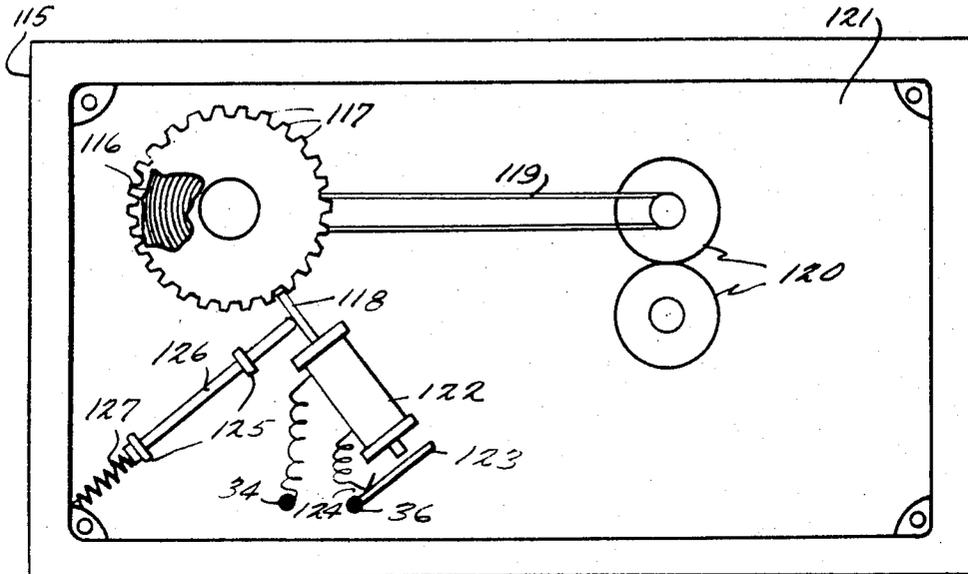
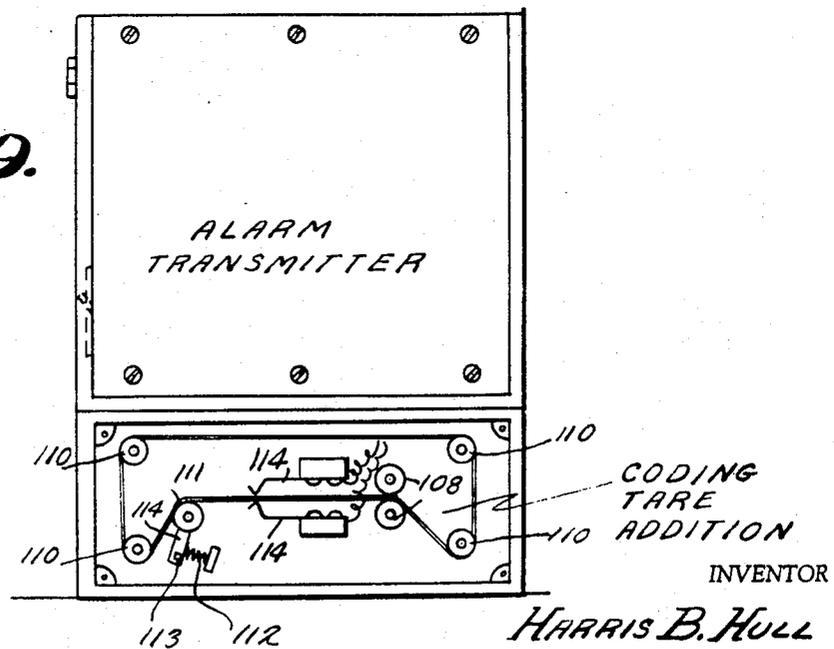


Fig. 10.

Fig. 9.



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3,440,635
POLICE ALARM
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 Filed June 28, 1965, Ser. No. 467,596
 Int. Cl. G08b 13/02, 1/08; H04b 1/02
 U.S. Cl. 340—277 18 Claims

ABSTRACT OF THE DISCLOSURE

Disclosed herein are methods and apparatus of the alarm type, specifically for alerting police or the like to the location of a robbery or other criminal act taking place with regard to a victim. A surreptitiously activated alarm responding to an unobtrusive movement of a victim to a crime sends out radio signals, preferably in coded form, to indicate the general location of the victimized, and a plurality of direction finders which receive the signal determine the location of the victim more accurately. Even if the radio equipment is removed from the victim's person after he has actuated the alarm signal, the alarm signal continues, even if the activating switch is removed. Other details of the invention are further disclosed.

This invention relates in general to means and a method for alerting police or other proper authorities of a dangerous situation, either present or impending, and, in particular, to apparatus and a method for specifying by the victim, the location of a robbery or other criminal act while the act is taking place. The invention also relates to particular means that may be employed to insure that the location of the crime is being transmitted to the police or other proper authorities in spite of an attempt on the part of the criminal to prevent this.

Heretofore, there has not been available any means which a victim to a crime could employ to notify the police of his whereabouts while a crime was being perpetrated upon him. In the absence of such means, it has been impossible to locate the scene of the crime while it is being perpetrated in order to apprehend the criminal.

Further, it is felt that if means were available to notify the police immediately upon the initiation of the crime at the scene of the crime, it might be possible for the police to approach the area with sirens wailing to scare off the criminal before he could accomplish the crime.

Also, it is felt that one of the reasons for the significant increase in the crime rate in recent years has been due to the fact that it is a fairly simple matter to commit a crime. In other words, being as it is so easy to commit a crime, many people commit or attempt to commit criminal acts which they otherwise might not be tempted to do. Therefore, by providing means for instantly notifying the policemen on the beat or cab drivers or people who work or live in areas where the crime rate is significant would provide an effective deterrent to criminal acts since this fact would be made known to would-be criminals. In other words, it would be publicize that policemen, and other people who have the need to do so, would carry on their persons means for instantly notifying the police or other proper authorities of the scene of the crime. It is felt that such widespread publication would indeed deter especially those who think that committing a crime is such an easy matter and who are therefore attracted to the life of crime.

Another situation where it is desirable to notify the police headquarters immediately arises when a policeman on the beat observes a crime taking place. Normally, the policeman is presented with a dilemma at this time since he is not certain whether he should

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first go to the nearest call-box and call for help or whether he should immediately attempt to apprehend the criminal or criminals before they have an opportunity to get away. Therefore, the capability of immediately notifying the police station of a dangerous situation is very desirable since it enables the policeman to immediately pursue the criminals.

A further capability which would be extremely helpful in aiding police in the apprehension of criminals would be that of providing means in conjunction with an alarm transmitter for broadcasting the policeman's voice when he has an opportunity to do so—that is, when he is not actually confronted by a criminal. Instances of such times would be when he has observed from afar the perpetration of a crime or after he has been confronted by the criminal and the criminal has left the scene of the crime.

Accordingly, it is an object of the invention to provide means for instantaneously and surreptitiously notifying the police or other proper authorities by the victim upon initiation of a criminal act.

Another object of this invention is to provide means for immediately notifying the police of a criminal act in order that the police might locate the scene of the crime while the crime is still being perpetrated.

It is a further object of this invention to provide means for immediately notifying the police of a criminal act so that the police might scare off the criminal by approaching the scene with a wailing siren.

It is another object of this invention to provide means for notifying the police immediately upon initiation of a crime so that criminals will find the perpetration of criminal acts more difficult and therefore less appealing.

It is a further object of this invention to provide means for immediately notifying the police station when a policeman on the beat has observed a crime taking place.

It is a further object of this invention to provide means for a voice connection between a policeman on the beat and headquarters when the policeman is not actually confronted by a criminal.

It is another object of this invention to provide a small and unobtrusive transmitter located upon the person of a victim which may be surreptitiously actuated by the victim of a criminal act.

It is a further object of this invention to provide means for insuring that the location of a crime will be transmitted to the proper authorities in spite of attempts by the criminal to prevent this.

It is a further object of this invention to provide means for encoding the alarm signal transmitted from the scene of a crime to establish the general area of the scene of the crime.

It is a further object of this invention to provide means at local police stations for unambiguously determining the relative direction of a crime with respect to a given police station.

It is a further object of this invention to provide means for determining the exact location of a crime with respect to two or more police stations.

It is a further object of this invention to provide portable means for installation in police cruisers and removable therefrom for tracking down the location of a crime in heavily wooded areas.

Briefly, the above objects are carried out by providing a small transmitter upon the person of the victim, which can be surreptitiously actuated upon initiation of a criminal act. The transmitted signal is received at local police stations and police cruisers which have direction finding (DF) equipment associated therewith. The DF equipment will respond immediately and unambiguously to the transmitted signal since a particular frequency is allocated for this purpose. The allocated carrier frequency may be

modulated with a tone of a particular frequency to distinguish various areas from one another. Further, the tone may be interrupted in accordance with a predetermined code to provide further refinement of the particular area from whence the transmitted signal originated.

Upon reception of the transmitted signal, the police swing into action immediately. The particular course of action that they employ will vary with the situation—for instance, they might turn their sirens on and approach the scene of the crime as quickly as possible in order to scare off the criminal. Or, if the situation warrants, they might decide to suspend operation of the sirens in the hope of apprehending the criminal while he is actually perpetrating the crime. Further, the locale of the crime might be such (for instance, a wooded area) that it is inaccessible to police cruisers, necessitating location of the scene of the crime by foot. Therefore, portable DF equipment is also provided with the police cruisers to enable the police to further refine their attempt to locate the scene of the crime on foot.

While the crime is being perpetrated, means are also provided for ensuring that the transmitted signal will still be received by the DF equipment in spite of attempt by the criminal to prevent this.

Other objects and advantages of the invention will become apparent after study of the following illustrative embodiment of the invention which is described in the specification, appended claims and drawings, in which:

FIGURE 1 shows diagrammatically the system configuration of a police alarm system;

FIGURE 2 shows a victim of a criminal act in position to unobtrusively actuate the police alarm signal;

FIGURE 3 is a diagrammatic illustration of a switch which may be surreptitiously actuated;

FIGURE 4 is a section of a socket with a plug inserted therein as used in the invention;

FIGURE 5 is a section of the socket of FIGURE 4 with the plug removed;

FIGURE 6 is a perspective view of the plug of FIGURE 4;

FIGURE 7 is a perspective view of the socket contact shown in FIGURE 4;

FIGURE 8 is a perspective sketch of the alarm transmitter showing the emergency switch and plug with the socket;

FIGURE 9 illustrates diagrammatically means for coding the alarm signal by a coding tape; and

FIGURE 10 illustrates diagrammatically means for driving the coding tape illustrated in FIGURE 9.

Referring to FIGURE 1, there is shown a system configuration of the various elements which would come into play in a police alarm system. It must be emphasized at this time that the invention is not peculiar to police alarm systems and that the system is intended to be used for all situations where a person is confronted by a dangerous situation and must surreptitiously, immediately notify police or other proper authorities of his whereabouts. For example, this might be the case in a war situation where a soldier in a dangerous situation would have to notify others who could rescue him. Generically, the scene of the crime or other dangerous situation is termed trouble spot 10 in FIGURE 1. The alarm signal may be transmitted from a low power, very high frequency (VHF) alarm transmitter or alarm means 12 when it is used as a police alarm. The transmitted signal may be frequency modulated by a tone from tone source or identification means 14, which may supply a plurality of tones of varying frequencies, respectively. For instance, the alarm signal can be modulated by a 400 cycle tone, which is roughly middle C, and which would therefore establish that the signal came from a given area (for instance, the 5th police precinct of Washington, D.C.). Another tone might then be used (for instance, 5,000 cycles) to identify another area. A further coding for refining the identification of the alarm signal may be achieved by pacing or interrupting

the tone by interrupter means 15 in accordance with a particular code (similar, for example, to the A and N coding for aircraft guidance). Or, the rate of interruption and/or the ratio of on time to off time of the tone may be employed to identify the tone when the number of users is small. Both of these methods will be described in more detail hereinafter.

The transmitted frequency which has been used for test purposes is 145 megacycles.

In order to provide for a voice connection between the trouble spot 10 and police headquarters, a voice input means 17 is connected to transmitter 12. The voice input means may be a small micro-miniaturized microphone on the side of the case enclosing transmitter 12. The size of the microphone would be so small that it would not undesirably effect the desired small size of the transmitter 12.

The alarm transmitter may have a power output of $\frac{3}{4}$ to 1 watt, with the weight of its supply battery being about 1 pound or less. There is no intent to restrict the invention to these particular values and they are given for illustrative purposes only. It is desirable to keep the weight down to insure that excessive weight of the transmitter 12 will not make it unappealing to persons, who must carry the transmitter. However, if the power is desired, there would, of course, have to be a slight increase in weight from 1 pound. A 22-volt battery may be employed, which is good for about 20 minutes, and which generates a satisfactory signal for a distance of six miles. The size of the transmitter would approximate the size of a cigarette package and could be carried in a plastic shoulder holster, to be described hereinafter, which would facilitate carrying of the transmitter upon the person.

At a plurality of separated precinct stations 16 are provided direction finders or direction finding means 18 which are able to unambiguously determine the direction from which the alarm signal is originating relative to the police station. By employing direction finders 18 at two precinct stations 16 simultaneously, the capability of determining the origin of the alarm signal is available through known navigational methods.

Further, cruise cars 20 may be provided with a portable DF capability, which is removable, to permit further refinement in location of the scene of the crime. The removable, portable direction finders 22 which are provided with the cruise cars 20 would be important when tracking down a crime (for example, in a wooded area) where the car 20 could not operate. By removing the portable direction finder 22, which would be battery operated, from the car, the policemen can further refine their search for the scene of the crime on foot.

Thus, there has now been described a unique combination for providing a police alarm to determine the location of a crime. Alarm means 12, which is surreptitiously actuated, provides an alarm signal which direction finding means 18 located at precinct stations 16 can operate upon to determine the direction of the scene of the crime with respect to a given precinct station or the actual location of the crime with respect to two or more precinct stations 18. Included within the alarm means 12 are identification means 14 for establishing the general area from which the alarm signal originated and an interrupter means 15 for encoding the identification means 14 to provide further specification of the general area from which the alarm signal originated. Portable direction finding means 22 are also provided in cruise cars or other type vehicles to provide further refinement in locating the scene of the crime. The portable direction finding means are also removable from the cruise car 20 to provide final refinement whenever the scene of the crime is within a wooded area or other such inaccessible place.

Referring now to FIGURE 2, there is shown the body of a victim of a crime who is in a position where he can surreptitiously actuate the transmitter 12 without being observed by the holdup man or whatever type of criminal it happens to be. A shoulder holster or carrying means

24 is worn by the victim underneath the clothing. Within the holster 24 is the transmitter 12 which is actuated, for example, by the victim by pressing in with his elbows on his sides. A switch or switch means 26 may be mounted on his belt, for example, or in the sleeve of his shirt at the elbow joint. The switch would close in response to pressure from a victim's elbow against his side. This would actuate the transmitter 12 through a connecting cable 27, thereby initiating the alarm signal. Since a great amount of pressure can be exerted from the elbow onto the side without attracting the criminal's attention, it is felt that this method of actuating the alarm signal is very desirable. Once the switch 26 is closed it will remain closed and therefore the pressure need be applied only momentarily.

Other methods of initiating the alarm signal may be apparent and, therefore, they also may be used with the invention. The construction of the switch 26 is such that it cannot be actuated by normal pressures which it could experience—for example, if it experiences a light bump or knock, it will not be actuated. In order for the switch to be actuated, a greater than normal pressure must be exerted against the switch. As has been noted above, a strong pressure can be applied against the sides from the elbows without attracting the criminal's attention and, therefore, this mode of actuation would supply the necessary amount of pressure to actuate the switch 26 without attracting undue attention.

Antenna 29 may be of the extended wire type which would normally be disposed underneath the clothing and would extend across the body and down the sleeve of the victim, as shown in FIGURE 2. The length of the wire would be approximately 2 feet, this being a sufficient length to generate a satisfactory signal upon which the direction finders 18 can operate. The antenna 29 would be so connected to the clothing that if the criminal tore the transmitter 12 away from the body of the victim in an attempt to suppress transmission of the alarm signal, the antenna would slide away from the victim's body, remaining connected to the transmitter 12. However, it is not practical to have the switch 26 also go along with the transmitter 12 if the transmitter is forceably removed from the body, and therefore means have been provided for insuring that the switch connection initiated by pressing switch 26 from the elbow will be maintained in spite of the fact that switch 26 is disconnected from the transmitter 12. This will be explained in more detail hereinafter.

Other types of antennas may be provided with the transmitter 12 to generate the omnidirectional radiation pattern required for a satisfactory alarm signal. For instance, a modified ferrite loop antenna, which can be built into the case enclosing transmitter 12, may also be employed.

Referring now to FIGURE 3, there is shown a detailed representation of the switch 26 which is preferably mounted on the victim's belt as shown in FIGURE 2.

The alarm switch consists of two impact-resistant plastic castings or members 76 and 78 which assemble to form the switch housing.

The mechanical and electrical components mount within this housing. Member 78 is stationary and affixed preferably to the belt of the wearer by two belt loops 80, which are schematically shown attached to the member 78.

Cable 58 passes through the hole 82 in the stationary member 78. The two wires 54 and 56 of cable 58 are connected respectively to the contacts 84 and 86 of switch 88.

The means for actuating switch 88 will now be described. Movable member or push button 76 causes switch 88 to close when the switch is depressed, thereby actuating the alarm transmitter. Button 76 is normally maintained in the extended position by two springs 90 and 92, which are retained by retaining members or center pillars 94 and 96, respectively. Retaining members 94

and 96 are integral parts of stationary member 78. Post or actuating member 98 is an integral part of movable member or button 76. Attached to the bottom of actuating member 98 is a switch actuating arm 100. The actuating arm 100 is preferably made of metal and affixed to actuating member 98 by a spring-loaded hinge 102.

When button 76 is depressed, actuating arm 100 causes a rotary switch 104 to advance. Preferably switch 104 has four blades and, therefore, the switch will advance one quarter turn upon depression of the button 76. After switch-actuating arm 100 has advanced rotary switch 104, it slips past the end of the rotary switch 104 near the end of its downward travel. As the button 76 is released, the button returns to its normal position due to the restoring force of springs 90 and 92. As actuating arm 100 moves upward, it swings out of the way of the blade of the rotary switch without causing further rotation due to the action of the spring-loaded hinge 102.

Each time the rotary switch is revolved one quarter turn, it alternately causes switch 88 to open and close. This action will now be described. Rotary switch 104 consists of four blades or projections mounted on a central wheel, which in turn is mounted on an axle to provide rotation of the rotary switch. The blades of the switch alternate between long and short in succession. The longer blades cause switch 88 to close when they are rotated to contact switch 86, thereby closing the energization circuit for the alarm transmitter. Once the electrical connection is established due to contact of one of the longer blades with contact 86, this contact is maintained until further action is taken to disconnect switch 88. This is done by depressing switch 76, which results in arm 100 causing one of the shorter blades to be aimed at switch contact 86. However, since the shorter blade is not long enough to maintain contact 86 electrically connected to contact 84, contact 86 will return to its normal position due to the influence of biasing spring 106.

Thus, there has been described alarm switching means which is capable of being surreptitiously actuated and which is difficult to accidentally actuate due to the strong force exerted by springs 90 and 92 to maintain button 76 in its normal position. However, as has been described before, strong pressure can be exerted from the elbow to produce the required pressure to depress button 76, thereby actuating the alarm transmitter.

Broadly then, the alarm switch comprises means (rotary switch 104 acting in conjunction with actuating member 98 and rotary switch actuating arm 100) for alternately opening and closing switch 88. Specifically, the rotary switch includes blades which are alternately long and short with respect to each other, thereby providing the capability to alternately open and close switch 88 due to the ability of the longer blades to close switch 88 and the inability of the shorter blades to do the same. Further, the length of switch-actuating arm 100 is of sufficient length to insure the advancement of rotary switch 104 with each depression of button 76. Also, due to the spring-loaded hinge 102 connecting actuating arm 100 to actuating member 98, actuating arm 100 does not rotate rotary switch 104 upon return of button 76 to its normal position.

In order to maintain the transmission of the alarm signal in spite of efforts on the part of the criminal to prevent this, means have been provided, as shown in FIGURES 4 through 8, which maintain the transmission of the alarm signal even when the criminal tears the transmitter 12 from the holster 24, thereby disconnecting the transmitter 12 from the switch 26, and throws it away—for example, in a bush. Normally, it would be expected that once the transmitter 24 was disconnected from the switch 26, that the alarm signal would terminate. However, means are provided, as shown in FIGURES 4 through 8, to prevent this from happening.

Referring to FIGURE 4, there is shown a portion of the transmitter case 28 which encloses the transmitter 12. The case 28 has a socket 30, which is mated to a plug or movable means 32. Wires or conductors 34 and 36 are molded into the body of the case 28 which is preferably a plastic material. The wires 34 and 36 are connected to the coils or variable length conductors 38 and 40 respectively. The coils 38 and 40 are electrically connected to socket contacts or movable contacts 42 and 44, respectively. Socket contacts 42 and 44 may be made of metal and fit into the cavities 46 and 48, respectively. The cavities 46 and 48 are, respectively, on two sides of the socket 30, which may be T-shaped. With the plug 32 inserted, the two socket contacts 42 and 44 are in electrical connection with plug contacts 50 and 52, which preferably are made from metal. The contacts 50 and 52 are on the sides of the plug 32. Two wires or switch conductors 54 and 56 are molded into the plastic plug 32. The wires 54 and 56 are affixed to the plug contacts 50 and 52, respectively. The wires 54 and 56 may then be brought out as a cable 58 leading to the switch 26 (see FIGURE 8). The closing of alarm switch 26 completes the electrical connection between wires 34 and 36 when an emergency situation arises. The wires 34 and 36 may be connected to the power supply for the transmitter 12 and, therefore, the transmitter 12 is actuated upon the closing of switch 26.

It should be noted that by inserting the plug 32 to full depth in the socket 30, the plug contacts 50 and 52 slip slightly lower than the contacts 60 and 62 on the socket contacts 42 and 44, thereby normally preventing connection between socket contacts 42 and 44. The springs 64 and 66 outwardly bias or present an outward force on the contacts 60 and 62, respectively, thereby holding the plug 32 in its inserted position and yet allow the plug 32 to be removed if a pull is applied to either the cable 58 leading to the switch 26 or, if a pull is applied on the transmitter case 28, removing it from the switch 26.

Reference should now be made to FIGURE 5 which shows how the connection between wires 34 and 36 is maintained or preserved even though the cable 58 leading to switch 26 has been removed. Because the springs 64 and 66 press outwardly toward each other, the contacts 60 and 62 of the metal socket contacts 42 and 44 are engaged in electrical connection. Therefore, an electrical path is maintained from wire 34 through coil 38, metal socket contact 42, socket contact 60, socket contact 62, metal socket contact 44, and coil 40 to wire 36. Thus, there has been provided means for insuring that the alarm signal from the transmitter 12 will be maintained in spite of separation of the transmitter 12 from the switch 26 by the criminal in an attempt to prevent the continued transmission of the alarm signal.

Reference should now be made to FIGURE 6 which shows a perspective view of the metal plug 32 and the plug contact 50 on one side of the plug 32. Wires 54 and 56 come out from the plug as cable 58 to be connected to switch 26. The plug 32 is made of plastic and the wires 54 and 56 are molded therein and electrically connected to plug contacts 50 and 52 (not shown).

Reference should now be made to FIGURE 7 which shows the metal socket contact in perspective view. The metal socket contact is provided with contact 60 as shown in FIGURE 4 and a retaining ring 68 for providing proper biasing of the spring 64. Further, coil 38 makes electrical connection with the shaft 70 to insure electrical conduction through the coil 38, the shaft 70 and the contact 60 at all times.

FIGURE 8 shows a perspective view of the alarm transmitter 12 with the emergency switch 26 and the plug 32 with the socket 30. Antenna 29 makes electrical contact to the transmitter 12 at a jack 72. In lieu of an extended wire antenna, as shown in FIGURE 8, provision may

also be made for a ferrite loop antenna which will be enclosed within the transmitter. Several variations on the possible antenna arrangement are possible, the main consideration being the generation of an omni-directional radiation pattern to insure reception by DF equipment located at any bearing with respect to the transmitter 12.

A dummy on-off switch 73 may also be provided on the side of the case 28 to further foil the attempts of the criminal to inactivate the alarm signal. The switch 73 would be normally set in the ON position, thereby leading the criminal to believe that by merely switching switch 73 to the OFF position, he could inactivate the alarm signal. The letters "ON" and "OFF" would also be clearly marked on the side of the case to attract the criminal's attention.

Battery 74 is shown enclosed within the transmitter case 28. However, it is also possible to provide separate packages for the transmitter and battery sections with a steel spike or connection connecting the two portions to prevent disengagement thereof by a criminal. The battery 74 may have a voltage output of 22 volts. Using the proper antenna, a signal of satisfactory quality can be transmitted for six miles.

Two additional coding methods for identifying the alarm station are here described. The first method to be employed when a limited number of alarm transmitters share a transmitting frequency, uses a simple interrupter to key on and off the above described tones at a predetermined rate. This is achieved through an electronic interrupter. The intelligence conveyed by this method is in the rate of interruption and the ratio of on time to off time.

When a larger number of stations share a frequency, the second method is preferable. With this coding technique a continuous tape is perforated with a sequence of numbers in Morse code. The numerical sequence identifies the sender, probably a business enterprise. As the tape passes between the contacts, the contacts make and break to conform to the code on the tape and this turns on and off the modulating signal.

Reference should now be made to FIGURES 9 and 10, which respectively illustrate the means for providing a further refinement in the transmitted tone by Morse coding the tone as mentioned above. Referring to FIGURE 9, the automatic coder to provide keying to the alarm transmitter modulation is provided by an endless tape containing perforations so located as to send a sequence of numbers when actuated.

The tape machine is a small addition affixed to the alarm transmitter. The tape 107 is pulled by a spring motor which drives the matched capstan drive wheels 108. Idler wheels 110 guide the tape around the tape deck. Idler wheel 111 is mounted to an arm 114 which pivots at axle 113. The arm provides tension for the tape since it presses to the left, FIGURE 9, due to the action of the compression spring 112. Wheels 108 rotate in opposite directions to pull the tape between contacts 114 so tensioned as to mate and close an electrical circuit when a perforation in the tape passes. In this way the contacts form a switch which closes to turn on the modulator of the alarm transmitter to conform to the identifying numbers punched on the tape.

FIGURE 10 shows the rear view of the coding tape addition 115 with the cover removed. A spring motor 116 is wound through the square center aperture by a key. The motor drives a large wheel with square serrations 117 on its periphery. The lock pin 118 engages the serrations and retains the motor output. The motor also drives two rubber drive wheels 120 through belt 119. The drive wheels are centered on shafts which pass through the partition 121 to the front side (FIGURE 9) as the shafts which rotate the capstan wheels 108.

When the alarm is actuated, an electrical voltage from the battery is applied to terminals 34 and 36 of FIGURE 4. Terminal 34 is connected directly to one side of

electromagnet 122. Terminal 36 is fed to the electromagnet 122 by moveable switch arm 123 and fixed contact 124.

When the voltage is thus applied to electromagnet 122, it pulls the lock pin 118 from where it is engaged in the serrated wheel and allows the motor to unwind by rotating the wheels 120 which in turn drive the tape pulling capstan. As lock pin 118 is pulled from the wheel it pushes the moveable switch arm 123 to the right pulling it away from fixed contact 124 opening the electric circuit to the electromagnet. It simultaneously permits a lock-out pin (126) to slide forward through its bearings 125 as propelled by spring 127. As the lock pin reaches the end of its travel, it prevents pin 118 from engaging the serrated wheel. The motor is thus allowed to completely unwind without further expenditure of electrical power.

What is claimed is:

1. A police alarm system comprising: an alarm means which is surreptitiously activated in response to an unobtrusive movement of a victim to a crime for radiating an alarm signal from the scene of the crime, said alarm means including a switch which is surreptitiously closed, a source of electrical energy, a transmitter, and a first and second conductor connecting said source to said transmitter via said switch so that said transmitter is activated to radiate said alarm signal when said switch is closed, direction finding means for receiving said signal and determining the location of said scene, and means for insuring that said transmitter and source remain connected together in spite of efforts to disconnect said switch and conductors from said transmitter and source, said insuring means including removable means connecting said first and second conductors to said transmitter and source, and connecting means for switching said transmitter and source into electrical connection in response to the disconnection of said first and second conductors by removal of said removable means.
2. A system as in claim 1 including coding means for identifying the general area from which said alarm signal originates to provide a first refinement in determining the location of said crime and where said direction finding means provides a second refinement in determining said location.
3. A system as in claim 2 where said identifying means includes a source of tones having different frequencies for respectively identifying different geographical areas.
4. A system as in claim 3 including means for interrupting said tones in accordance with a predetermined code for providing a further refinement in the determination of the location of said crime.
5. A device as in claim 2 where said direction finding means is removably mounted in a vehicle to provide said second refinement when said vehicle is not operable within a geographical area.
6. A device as in claim 1 where said first switching means normally prevents said second switching means from establishing said connection.
7. A device as in claim 6 where said second switching means is physically separable and said first switching means includes means for normally physically separating said second switching means.
8. A police alarm system comprising: an alarm means which is surreptitiously activated in response to an unobtrusive movement of a victim to a crime for radiating an alarm signal from the scene of the crime, said alarm means including a switch which is surreptitiously closed, a source of electrical energy, a transmitter, and first and second conductors connecting said source to said transmitter via said switch so that said transmitter is activated to radiate said alarm signal when said switch is closed, and means for insuring that said transmitter and source remain connected together in spite of efforts to dis-

connect said switch and conductors from said transmitter and source, said insuring means including first connector means having first and second contact means, said transmitter and said source each connected to a different one of said first connector contact means,

second connector means having first and second contact means, said first and second conductors each connected to a different one of said second connector contact means,

means in said first connector means urging said first connector contact means together to connect said source to said transmitter, and

means comprising the contact means of said second connector means for separating the contact means of said first connector means when said second connector means is connected to said first connector means to thereby respectively connect the first and second contact means of the first connector means to the first and second contact means of the second connector means.

9. A device as set forth in claim 8 where said variable length conductors comprise a length of wire.

10. A device as in claim 9 where said first and second movable contacts are biased together by first and second springs respectively.

11. A device as in claim 10 where said movable means comprises a plug and said device includes a case having a socket therein for reception of said plug.

12. A device as in claim 11 where said switch conductors are molded within said plug.

13. A device as in claim 12 where said first and second wires are molded within said case and said first and second movable contacts are mounted within cavities on each side of said socket.

14. A device as in claim 13 where said plug has first and second contacts mounted on the sides thereof to establish electrical connection between said first and second movable contacts and said first and second switch conductors, respectively; said first and second metal contacts being normally disposed in relation to said first and second movable contacts so that said movable contacts prevent the removal of said plug from said socket.

15. Apparatus as in claim 8 including direction finding means for receiving said signal and determining the location of said scene.

16. Apparatus as in claim 15 including:

tape means containing a sequence of perforations which represent a predetermined code for providing a refinement in the determination of the location of said crime,

mechanical motor means for driving said tape means, means disposed adjacent said tape means responsive to the said perforations for interrupting said radiated alarm and thereby providing said predetermined code,

said interruptions being generated as said tape means is driven past said interrupting means by said motor means, and

means responsive to said unobtrusive movement for initiating the operation of said mechanical motor means thereby causing said tones to be interrupted in accordance with said predetermined code without further expenditure of electrical power.

17. A system as in claim 16 where said motor initiating means includes lock pin means for preventing operation of said motor means and electromagnetic means responsive to said unobtrusive movement for moving said lock pin means into a position where it no longer prevents operation of said motor means, thereby initiating the operation of said motor means.

18. A system as in claim 17 where said motor initiating means includes switch means for controlling the operation of said electromagnet means, said switch means being

opened in response to the movement of said lock pin means thereby deenergizing said electromagnet means.

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U.S. Cl. X.R.

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