A hijack prevention system for an airplane wherein a conventional appearing telephone is positioned outside the pilot's cabin on the airplane. The telephone is provided with apertures for the emission of an incapacitating gas. The emission of the gas is controlled by the pilot or copilot from within the pilot's cabin. When a hijacker identifies himself during flight, the stewardess requests the hijacker to converse with the pilot over the telephone. While conversing with the suspected hijacker, the pilot has a chance to determine for himself whether the person is really a serious hijacker. If the pilot so decides, he activates the hijack prevention system by releasing the incapacitating gas through the telephone. The hijacker is then taken into custody while he is under the influence of the incapacitating gas.

10 Claims, 5 Drawing Figures
CRIME PREVENTION SYSTEM

BACKGROUND OF THE INVENTION

The present invention relates generally to a crime prevention system, and more particularly relates to a new and improved system for preventing an airplane from being hijacked.

Commercial airlines are not at the present time practicing an effective system for preventing the hijacking of airplanes. Some unsuccessful systems are being used. For instance, passengers on flights which are prone to hijacking are scanned by a metal detecting probe. While a passenger is preparing to board the plane, he is scanned with a probe which detects large metal objects. If a positive reading is given by the probe, indicating a particular passenger is carrying a large metal object, which may be a gun, then effective measures may be taken to determine if in fact the passenger is carrying a gun.

Generally, airlines have acquiesced to a hijacker’s demands if the hijacker is successful in boarding the plane and taking control of the passenger section of the plane during flight. This policy of acquiescence encourages further hijacking attempts. It also imposes many inconveniences on the other passengers. The passengers are delayed, often by several days, in arriving at their destinations. Also, a successful hijacking subjects passengers, and concerned relatives and acquaintances who are not on the flight, to severe emotional strain. The airlines are likewise adversely affected. The hijacking completely interrupts an airline’s planned schedules. The airline is subjected to the loss of a plane for several days, all the material and personnel costs involved in flying to the hijacker’s desired designation, and many other diverse costs. Some airlines pay all the passengers’ food and lodging expenses during the hijacking. Moreover, since airlines have decided to acquiesce in hijacking attempts, they have gone through the added expense of training selected pilots on landing patterns in the airports of the more common hijacking destinations such as Cuba. Also, future airline business is undoubtedly impaired as the possibility of a hijacking probably deters possible airline passengers from traveling on an airplane, thus resulting in further loss of revenues to an airline.

The present invention provides a practical alternative to the acquiescence policy of airlines, and thus eliminates many of the aforementioned disadvantages and expenses which result from such a policy.

SUMMARY OF THE INVENTION

In accordance with a preferred embodiment of the invention, a system is disclosed for safely incapacitating a suspected hijacker. A conventional appearing telephone is positioned outside the pilot’s cabin of an airplane. The telephone is provided with apertures for the emission of an incapacitating gas. The emission of the gas is controlled by the pilot from within the pilot’s cabin. When a hijacker identifies himself during flight, the stewardess requests the hijacker to converse with the pilot over the telephone. While conversing with the suspected hijacker the pilot has a chance to determine for himself whether he thinks the person is really a serious hijacker. If the pilot so decides, he activates the hijack prevention system by releasing the incapacitating gas through the telephone. The hijacker is taken into custody while he is under the influence of the incapacitating gas.

Although the invention has been described with reference to an airplane, it might also be practiced with other vehicles, such as a limousine or taxi-cab having separate operator and passenger compartments. Further, the invention may be utilized in a situation where a telephone is used to communicate between inner and outer compartments, and there is a possibility of a forced entry into the inner compartment. Such a situation might occur in the inner chambers of a financial institution, such as a bank, or in retention facilities, such as a prison.

BRIEF DESCRIPTION OF THE DRAWINGS

These and other features of the present invention will become apparent upon a perusal of the following specification taken in conjunction with the accompanying drawings wherein:

FIG. 1 is an interior view of an airplane showing features of the invention while practiced in an airplane.

FIG. 2 is a view of a unit which provides both electrical connections and a supply of incapacitating fluid to a telephone handpiece.

FIG. 3 is a view of the unit illustrated in FIG. 2 as seen from the reverse side.

FIG. 4 illustrates how a conventional telephone handpiece may be modified to practice this invention.

FIG. 5 shows a view of the pilot’s cabin of an airplane while the pilot is conversing with a hijacker and is implementing the hijack prevention system taught by this invention.

DESCRIPTION OF A PREFERRED EMBODIMENT

FIG. 1 illustrates an interior view of an airplane showing the invention implemented therein. The airplane has a sectional wall 12 which separates the pilot’s cabin from the passenger section of the plane. Door 14 leading to the pilot’s cabin, is locked during flight. A telephone receiver 16 is positioned on wall 12, and is normally utilized by stewardesses when they are communicating with the pilot or co-pilot. The telephone 16 provides the only means of communication between the passenger and pilot sections of the airplane during flight. Telephone 16 has a conventional appearing handpiece 18 which is connected to a normal appearing electrical unit 20 by a conventional looking cable 22. As will be more fully explained later, handpiece 18 is not conventional, but is adapted to emit an incapacitating fluid which is stored in unit 20. Unit 20 has a cover 21 which has apertures 23 located on both sides of the cover. The apertures 23 are provided in the event the incapacitating fluid stored in unit 20 accidentally leaks out.

FIG. 2 is an illustration of unit 20 when cover 21 is removed. Unit 20 provides both electrical connections and a supply of incapacitating fluid to the telephone handpiece. A small cylinder 24 containing incapacitating fluid is attached to the back wall 21 of the unit by screws 26. Incapacitating fluid from cylinder 24 is selectively released into cable 22 by valve 28, which has a control knob 30 on the back side of unit 20. Control knob 30 is connected to valve 28 by shaft 32 which is sealed at 34 where it passes through back wall 21. Electrical wires 36, which provide conventional electri-
cal connections to the telephone handpiece, lead forward into the pilot's cabin through seal 38. Electrical wires 36 lead to the telephone handpiece through fitting 40 and conventional appearing cable 22. Fitting 40 is provided with a fluid seal 42 at the wire entrance.

Cylinder 24 is preferably a small cylinder containing enough fluid to incapacitate only a few persons if the fluid is released in close proximity to the face. Such a small supply of incapacitating fluid minimizes any dangers due to accidental leakage of the fluid. Seals 34 and 38 are provided to prevent the fluid from reaching the pilot's cabin if accidental leakage should occur. Likewise, vents 23 in cover 21 are also provided to allow accidentally leaking fluid to vent harmlessly into the passenger section of the plane. Although one cylinder of fluid has been illustrated, a second redundant cylinder may be desired to provide a higher system reliability. Another option which may be utilized is the addition of a fluid pressure regulator to provide a uniformly low fluid pressure at handpiece 18. Depending upon the pressure of the fluid in storage cylinder 24, a pressure regulator might be used to prevent the incapacitating fluid from hissing while emanating from handpiece 18, and thereby alerting the suspected hijacker that all is not normal.

FIG. 3 is a view of the unit illustrated in FIG. 2 as seen from the reverse side in the pilot's cabin. This side of the unit is normally closed by cover 44, which pivots at the bottom of the unit about hinge 46. Cover 44 is normally held closed by latch 48. In the event the pilot decides to use the hijack prevention system, cover 44 is opened by releasing latch 48. This exposes control knob 30, which may be used to open valve 28.

Although FIGS. 2 and 3 illustrate a mechanical control system for the release of the incapacitating fluid, under some circumstances an electrical control system might be utilized in the practice of this invention.

FIG. 4 shows how a conventional telephone handpiece of a telephone may be modified to provide for the release of an incapacitating fluid. Telephone handpiece 18 is illustrated as being a conventional two-way receiver, but in some situations the invention might be practiced utilizing only the sending or voice transmitting section of a telephone. Further, the telephone might have a sending section which is permanently attached to the wall, instead of the freely movable handpiece which is illustrated. Voice transmitting section 50 of handpiece 18 has conventional apertures 52 which are provided for voice communication. Electrical transducer diaphragm 54 is supported in a normal fashion in housing opening 56. Aperture 58 is provided to carry the incapacitating fluid from cable 22 to housing opening 56. Cable 22 may be simply a hollow rubber tubing for carrying both the electrical wiring and the fluid. The fluid flows from tubing 22 through aperture 58 into housing opening 56 and then through slots 60 to the apertures 52. Slots 60 are formed in the sides of housing opening 56 and removable portion 59 to allow the fluid to pass from housing opening 56 around transducer diaphragm 54 to apertures 52. Only two slots are shown for clarity of illustration, but in a preferred embodiment, slots 60 are formed in a regular fashion around diaphragm 54.

FIG. 5 illustrates a view of the pilot's cabin while the pilot is conversing with a hijacker and is implementing the hijack prevention system taught by this invention. Pilot 62 is conversing with the suspected hijacker over the telephone system while copilot 64 has taken charge of flying the airplane. Pilot 62 can view the suspected hijacker through mirror 66 and one way mirror 68, which is positioned on wall 12. Mirror system 66 and 68 is optional, but provides an additional factor of reliability to the overall system as the pilot may ascertain that the hijacker is correctly positioned for the system to work effectively. Although a mirrored viewing means has been illustrated, other types of one-way viewing apparatus, such as a peep-hole view, could be used. In FIG. 5, the pilot has released cover 44 and is in the process of opening valve 28 with control knob 30.

The illustrated embodiment provides a modular system which may be easily fitted into an airplane. Other embodiments may be practiced wherein the hijack prevention system is not provided in a modular package, and the components of the system are separately installed in the airplane.

The illustrated embodiment of the invention is practiced as follows. When a hijacker identifies himself during flight, the stewardess would first communicate that fact to the pilot over the provided telephone, and then request the hijacker to converse with the pilot over the telephone. While conversing with the suspected hijacker, the pilot has a chance to determine for himself whether the person is really a serious hijacker. If the pilot so decides, he activates the hijack prevention system by turning the control knob 30 in his cabin, which in turn causes the incapacitating gas to be released through the telephone receiver. The hijacker is then taken into custody while he is under the influence of the incapacitating fluid.

There are many types of incapacitating fluid which may be used while practicing this invention. Tear gas and mace immediately suggest themselves as possibilities. Although, a better type of fluid would probably be an odorless gas which almost instantaneously causes the inhaler to lose consciousness. Alternatively, a mixture of fluids to produce different effects, such as irritation, blindling and unconsciousness might be used.

While several embodiments have been described, the teachings of this invention will suggest many other embodiments to those skilled in the art.

I claim:

1. Apparatus for preventing the forced overtaking of the pilot's cabin in an airplane by a potential hijacker located in a section of the airplane outside of the pilot's cabin, and wherein telephone communication is normally available between the pilot's cabin and the section of the airplane located outside the pilot's cabin, comprising:

a. a telephone positioned outside the pilot's cabin of the airplane and providing telephone communication between the pilot's cabin of the airplane and the section of the airplane located outside the pilot's cabin;

b. said telephone having means for emitting an incapacitating fluid;

c. a supply means for supplying incapacitating fluid to said emitting means; and

d. means, located in the pilot's cabin, for controlling the emission of incapacitating fluid from said emitting means.
2. Apparatus as set forth in claim 1 wherein said telephone includes a hand piece, and said emitting means includes apertures formed into said hand piece.

3. Apparatus as set forth in claim 2 wherein one-way viewing means are provided in the pilot's cabin for enabling viewing of the section of the airplane located outside of the pilot's cabin where the telephone is positioned without it being apparent that such viewing is possible.

4. Apparatus as set forth in claim 3 wherein said controlling means includes means for selectively controlling the rate of release of incapacitating fluid from said emitting means.

5. Apparatus as set forth in claim 4 wherein said supply means and control means are constructed as a modular unit, whereby the unit may be installed in a conventional airplane with a minimum amount of alterations to the airplane.

6. Apparatus as set forth in claim 5 wherein said supply means contains only a small amount of incapacitating fluid, sufficient to incapacitate only a few persons when the fluid is released in close proximity to the face of the hijacker.

7. Apparatus as set forth in claim 1 wherein one-way viewing means are provided in the pilot's cabin for enabling viewing of the section of the airplane located outside of the pilot's cabin where the telephone is located without it being apparent that such viewing is possible.

8. Apparatus as set forth in claim 7 wherein said supply means contains only a small amount of incapacitating fluid, sufficient to incapacitate only a few persons when the fluid is released in close proximity to the face of the hijacker.

9. Apparatus as set forth in claim 8 wherein said controlling means includes means for selectively controlling the rate of release of incapacitating fluid from said emitting means.

10. Apparatus as set forth in claim 9 wherein said supply means and control means are constructed as a modular unit, whereby the unit may be installed in a conventional airplane with a minimum amount of alterations to the airplane.

* * * * *