WHY NOT USE PARACHUTES?

BY KENNETH BROWN COLLINGS

THE scheduled airlines refuse to provide parachutes for passengers, pilots, and crews. The operators claim that parachutes are useless. They say:

1. That crashes on scheduled airlines invariably happen so suddenly that there would be no time to use parachutes if they were provided.

2. That even if the time were sufficient, the passengers would be afraid to jump and would refuse to do so.

3. That in the remote event that the passengers were willing to jump, some of them would be physically incapable of operating the present type manual 'chute.

4. That if the manual parachutes were replaced by automatic 'chute devices, operated by the pilot, people would refuse to ride in airplanes.

Taking those objections in order, we consider first the time element. "Scheduled airline flying," say the operators, "is different. Parachutes won't work. Look at the wreckage of any of our crashes. Why, man, they were right on the ground; anyone with half an eye can see that there was no time to use parachutes, even if they had them." Which is just about as sensible as to say that the ship did not sink until it went under the water, and completely ignores the fact that in the great majority of cases there was considerable warning.

There is, moreover, conclusive proof that this warning frequently comes far enough in advance of the crash to provide ample time for all hands to bail out. This is offered by the history of the non-passenger carrying, parachute-equipped mail pilots on these same air routes. These men have repeatedly saved their lives by taking to their 'chutes; one famous pilot has a record of four such life-saving jumps, and two-time members of the "Caterpillar Club" are so common as to excite little comment.

Behind the scenes, in such cases, is one thing with which the public is not familiar, namely, that while the newspapers are applauding the new Caterpillar who has jumped for his life, his employer is probably sitting at his desk bemoaning the loss of a $20,000 or more airplane, and wondering whether or not to fire the hero. There is the feeling—not always expressed—that the pilot may have exaggerated his danger; that had he stuck it out just a little while longer, he might have weathered the storm and saved his plane.

Such criticism is easy for a man in a nice warm office, and tough on the young man who is crashing through the blizzard at 180 miles an hour, blind as a bat. But rightly or wrongly, the pilot knows from long experience that if he jumps, he will have to justify himself for so doing. Knowing this, you can be sure that he has been thinking about the necessity of bailing out for quite a while—sometimes a half an hour or more—before he finally steps over the side.

The essential point is that he has suf-

ficient time to think the situation over thoroughly, and still has time to bail out. In a similar tight spot, the passenger pilot, without parachute equipment, is undoubtedly thinking how nice it would be to take a dive—in many cases the time would be sufficient to unload all passengers—but he has no choice other than to try to weather it out. When sometime later, a farmer finds the wreckage and dead bodies, the operators issue a statement: "It happened suddenly"; "It was unexpected"; "Nothing could have saved them; they were too low."

Under the particular circumstances of an individual crash, that last statement might be true. The pilot may have been flying so low as to hit a mountain or other obstruction without warning. The question then arises as to why he was flying that low, and whether it was not the lack of parachute equipment which prompted him to do so.

Airplanes in thick and stormy weather are like steamships; land is the danger point for both. Under such conditions, a ship steers for open water and an airplane pilot should seek altitude. The big difference is this: the ship can slow down, and if necessary, stop; the airplane can do no such thing, even when its limited supply of fuel is exhausted. As a result of this, many blind crashes have been the result of collisions with mountains or buildings, due solely to low flying by pilots in quest of a suitable landing place.

A non-parachute equipped pilot proceeding through bad weather, has a choice of only two methods of procedure. He can fly high and hope that before he runs out of gasoline he will find a hole in the soup through which he can descend. Or he can elect to hedge hop close to the ground so as to keep track of emergency landing places. Both methods are fraught with danger, which parachutes would eliminate.

With 'chutes for all hands, the pilot would always take the high altitude course, secure in the knowledge that if he failed to find a clear area within his fuel radius, the plane might be wrecked but no one would be killed. And the very fact that the parachutes were present would of itself provide the requisite time for their use by thus allowing the pilot to fly at high altitudes.

Here is an actual example of conditions encountered by air transports. A Buffalo-Cleveland airliner was caught in a violent storm and driven off its course. The case is unusual only in that the pilot is alive to tell us about his experiences.

"Suddenly," he reported, "we were gripped in a blast that carried us from 4,000 to 14,000 feet. Then as suddenly, we were sucked downward. The wires screamed and I felt fabric let go. We were turning over and over, but it meant nothing because we didn't know if we were right side up. Maybe we prayed, and maybe we just hung on and hoped. Then I saw the ground."

Note the time element involved in that statement. During the ascent to 14,000 feet, and subsequent drop, there was ample time to unload everyone . . . unnecessarily, as it turned out. And that brings us again to the financial rub—which underlies every objection to parachutes advanced by the operators. While in the foregoing case, the dumping of all passengers would have been more than justified, it would have entailed the wrecking of an expensive plane. As it turned out, the plane was saved—by a miracle.

There is another type of accident in which experience has proved that there is often time to use parachutes: aerial collisions, which will inevitably increase in

number as the number of airplanes increases. Near San Diego, an Army pilot collided with an air transport well above 2000 feet. The Army man was caught in the wreckage of his small plane, but the passengers and pilot of the transport were not injured until the plane crashed to the ground, when they were killed. In the meantime, those people had to sit there and watch death rush to meet them; sit there long enough to use the slowest of parachutes—if they had had them.

The foregoing facts make it evident that the claims of the operators, that there is never time for passengers to use parachutes, are false. We might also note that they are of doubtful wisdom. The airlines should not expect intelligent people to have confidence in the safety of air travel so long as they are told that any accident means sure death.

II

To visualise the next claim of the operators —also the true reasons behind the claim— and its fallacies, let us look at a present type, manual parachute. It consists of a pack—containing the folded 'chute—which is used to cushion either the seat or back of the passenger's chair. This pack is attached to the passenger's body by means of a simple harness; its only control is a rip-cord ring located over the left breast of the wearer. To use the 'chute, the passenger must jump clear of the plane, and then pull the ring. And this, say the operators, the passengers would refuse to do.

Let us assume that these parachutes have been provided for the crew and passengers of a plane about to leave Newark. The passengers are now lined up beside the plane while the co-pilot explains the simple operation of the 'chutes . . . and the operators are having the jitters.

The truth of the matter is that they are convinced that the flight will never progress past this stage. They believe that this parachute drill will plant the idea that danger impends, in the passengers' minds; they foresee a precipitous departure of the air travelers in the direction of the office and a unanimous demand for refunds of the purchase price of tickets.

Considering the fact that many steamship lines require passengers to attend life boat drill attired in their life preservers, there seems to be no ground for this fear. Those steamship lines which have neglected this precaution have been roundly censured for so doing, and those which insist on life boat drills have profited by increased public confidence.

To follow the argument of the operators to its conclusion, let us assume that the passengers did not cancel their passages, and the airplane is now en route to Chicago. Over the mountains the weather closes in and the pilot realises that a crash is inevitable. He calls to the co-pilot and stewardess:

"Unload all passengers; all hands bail out!" And according to the operators, no one will obey. They claim that fear of the unknown will keep the passengers frozen to their seats; that they will face sure death in preference to the hazards of the jump. Which is undoubtedly an extreme point of view, for while some few might refuse, others would jump and thereby save their lives.

In the event that any passengers did refuse to bail out, the pilot would have to stick to his ship. But the remainder of the crew—as many as three—would certainly jump, which is a clear saving of three lives, and their example might prompt the timid passengers to change their minds and follow them down.

Let us concede the worst: one or more

obstinate passengers having refused to jump, the pilot is compelled to stay with his plane and take the long chance of making a safe landing. Two possibilities now arise: the first—and far more probable—is that the pilot and remaining passengers are killed. The other—and this is the operators' nightmare—is that the unexpected happens and the plane lands safely.

Unbelievable as it sounds, under certain circumstances the operators are more afraid of saving the lives of passengers than they are of killing them. We shall encounter this fantastic fear again and again; it is one of the real undercurrents motivating the various excuses advanced by the operators for their failure to provide parachutes for passengers. It is therefore necessary that we give it the fullest consideration.

The unloading of our airplane's passengers—ten in number—has been over the wilds of the Pennsylvania mountains. Two passengers have refused to make the jump, and the pilot is trying to save their lives—and his—by finding a landing place.

The ten jumpers have drifted to earth to find themselves twenty miles from the nearest habitation or transportation. Some were bruised and scratched in landing in trees. One man broke his leg; it was snowing and two women caught pneumonia before they were rescued, while another froze a foot. A business-man-passenger missed an appointment in Chicago and thereby lost a quarter of a million dollar contract; a son was unable to reach St. Louis in time for his mother's funeral; a surgeon rushing to perform an operation in Cleveland, did not arrive in time.

If the expected deaths of the pilot and non-jumping passengers ensued, all of these items would seem trivial. The survivors would spend the balance of their days telling how lucky they were and singing the praises of parachutes.

"But," moan the operators—off the record—"suppose, just suppose, that the pilot *did* get a break, and *did* land safely. Then all those parachute jumpers would sing another tune entirely. They would swarm into court and sue us for every dime we ever had. They would claim that their injuries, exposure to the elements and delays, were unnecessary. Man, Oh! Man! The proof which they would wave under the noses of the jury, would be the fact that the pilot got through and landed safely. And you know American juries: for a death, they will only award a nominal sum, but for an injury, the sky is the limit."

For quotation, however, they attempt to strengthen their argument by a technicality. "If only one passenger lost his nerve," say the operators, "and he happened to sit close to the exit, that one passenger could block the doorway and bottle up all of those behind him."

There are several answers to that. The first is the one frequently used by ships' officers in cases of disaster when recalcitrants endanger the lives of others: brute force. It is nothing new for a student in some parachute school to lose his nerve and stand hesitating in the doorway when about to take his first jump. When this happens, some obliging friend usually gives him a sudden shove from behind to get it over with; shoves him into the air in much the same manner that you push a reluctant diver off a spring-board into a cold lake. And the parachute jumper suffers no worse effects than the swimmer.

There is, however, little use in arguing the desirability of such methods; a minor structural change would eliminate their necessity. There could easily be an emergency door beside each seat with a master

control to be released by the pilot when required.

"Air travelers," say the operators, advancing their third argument, "include aged invalids and babies in arms. These classes of passengers could not use a parachute; they could not pull the rip cords." Which statement puts one issue squarely in the foreground: the question of profits versus safety.

If the only object be to make money, of course anyone who has the price of a ticket will be carried. But if the primary object be to furnish air transportation only to those for whom it is reasonably safe, then passage can be refused to those who are unable to operate their safety equipment. Here also, there can be no point in arguing the question to a decision; the installation of automatic parachutes—which we shall discuss next—will eliminate it.

III

Such installations will require minor changes in air transports. In the meantime, if all classes of passengers—regardless of their ability to pull the rip-cords—are carried, the use of manual 'chutes will improve the chances of the great majority.

Two automatic parachute devices have been perfected, and while varying in detail, they involve the same general principle. In neither is the passenger required to do anything other than to sit in his chair. In both, the parachute is an integral part of that chair. In an emergency, the pilot unlocks a master control lever, and throws his passengers—chairs and all—entirely out of the plane; the parachutes open automatically. Under one system, this is done through panels in the side of the cabin; under the other, the passengers drop through trapdoors in the floor.

The passenger's safety belt is the only fastening necessary, and even if he has been riding with it unfastened—which the stewardess or co-pilot would normally have checked-up and rectified—it is doubtful if he would fall out of the seat during his descent. The chairs leave the plane in a timed rotation—an instant of interval between them—and there is no possibility of one 'chute fouling another.

As long ago as 1929, the trapdoor method was successfully demonstrated by one of America's foremost parachute designers. Invitations to witness the tests were sent to the leading operators as well as manufacturers, and to military authorities. Although the military men attended in great numbers and expressed great confidence in the project, with only one exception, no operators or manufacturers attended or indicated any interest.

"There is no use looking at that," say the operators, advancing their final argument. "No one is going to ride in an airplane if he knows he can be tossed into space at another man's whim. Prospective passengers would be afraid that if the pilot happened to get out of the wrong side of his bed that morning, he would take his grouch out on them."

If there was any truth in that theory, no one would travel on steamships. A ship's officers could become angry and scuttle it in the dead of night if they so desired, but it is a far-fetched theory to think that they ever would.

Of course, the real reason for this avoidance of the automatic 'chute issue on the part of the operators, is the same as that behind their other arguments: for financial reasons they want nothing to do with parachutes for passengers; in their eyes the automatic 'chute is even a worse bugaboo than the manual—it could be used more frequently.

Manual parachute jumps from airplanes

in abnormal positions—the tailspin being the worst—are more difficult than in normal flight, but not impossible. There are authentically recorded cases of successful jumps from all positions. Moreover, the fact that a plane was spinning when it hit the ground, means little. The emergency often begins far in advance of that final, fatal spin.

The automatic trapdoor parachute, however, entirely eliminates the difficulties encountered in bailing out of a spinning plane; in fact, the spin becomes an asset. In tailspins, the centrifugal force is great. The passenger is glued to his seat much as water is held in an inverted bucket when rotated rapidly over your head. He finds it difficult to raise his feet from the floor, and he must exert considerable strength to force himself out of his chair.

These identical conditions form an ideal setting for the use of the trapdoor 'chute. The centrifugal force—downward and outward in a spinning plane—adds impetus to the drop when the trapdoor is sprung. Thus, the passenger is thrown completely clear of the course of the spinning plane, avoiding entirely the chance of later collision with it.

Using the trapdoor parachute, eight passengers can be unloaded from a high speed dive at altitudes as low as 800 feet. In level flight at speeds of 100 miles per hour or more, eight passengers can be safely dropped from 200 feet. With only four passengers, these figures can be halved, and when multiple parachutes work successfully at 100 to 200 feet, there is little more we can ask. Their routine use would save most of the lives now lost in scheduled air transport crashes.

In spite of these facts, the air transport companies refuse to use them. In addition to the financial losses which they anticipate as the result of such usage, there is another reason for refusing: the current expense which parachutes would entail.

Parachutes are expensive, about $250 apiece; they require constant servicing by experts who command substantial salaries; and the weight of the 'chutes themselves detracts from the pay-load which the plane can carry. The necessary changes to install automatic 'chutes will still further increase the cost.

Profits may be essential to the operation of commercial airlines, but in their present method of seeking them, the operators are distinctly off on the wrong foot. If they would forget money until after they have made flying comparatively safe, they would find that profits would come automatically. Hundreds of air transports could be flying the air lanes for every one now in use, but this will never happen as long as an accident means sure death. The day when some commercial air transport saves its passengers from sure death via the parachute will see the first real boom in air transport.

LITERARY BOSS OF THE MIDDLE WEST

BY EDGAR LEE MASTERS

I KNEW William Marion Reedy a number of years before 1914, when Spoon River Anthology was published serially in Reedy's *Mirror*. Our acquaintance began on an occasion when I had a libel suit to defend for one of the Chicago newspapers in Hannibal, Missouri. As I needed local counsel and didn't know of anyone, I went to see Reedy who knew about all the lawyers in St. Louis, as well as about everyone else of prominence in the town.

I found him in his editorial office in the midst of correspondence and manuscripts. There he sat at his desk a huge man, but huge with fat rather than frame. His face fairly glowed with effulgence and benignant smiles as he greeted me in a voice that rolled out with orotund volume. His very large head was crowned with a great wealth of dark hair into which no gray had come. He was then about 47 years old and in magnificent vitality.

The matter of an assisting lawyer was soon settled; and then the talk flowed in a thousand streams. Reedy was in correspondence with nearly all the notables of America at the time: literary men, actors, politicians, statesmen, editors, and with Theodore Roosevelt, then president, whom he had recently visited at the White House. He was also much sought out by visiting celebrities, Masefield and others; and there were all these things to talk about. In fact we adjourned the talk until the luncheon hour in order that he might finish his morning's work.

While we had exchanged some letters before this time, our correspondence now became voluminous and steady, running to two or more letters a week. The publication of Spoon River Anthology brought more letters which throw light from many angles upon the America of those years, upon the America of the Great War, the rising litterateurs of the time, prohibition, Bryan, Wilson, and the fanaticism that then was raging. Eventually they must be published, together with a life of Reedy, who was the chief citizen of St. Louis for nearly a quarter of a century, and as the editor of the *Mirror*, one of the most influential men in America.

Reedy won this eminence by a literary style that was as fluent as water, as transparent as light; by the facility with which he touched upon myriads of subjects, from the single tax to free verse, from searching discussion of notables and policies to the dramas, poems and novels that were coming along. He backgrounded all this with a very extensive scholarship in many fields, for he had read nearly every book of moment among the Greeks, the Romans, the Italians, Germans and English and French. Thus he was able to identify the derivation of new work; and his literary judgment was as keen as it was fresh and informative; it was often profound. He was the literary boss of the Middle West, and as such had something compelling to say about every part of the country. When he spoke the nation listened.