WHAT ABOUT THE AIRSPACE?*

In a New York City newspaper there appeared an advertisement, offering for sale the permanent right of passage at an altitude over one thousand feet in the airspace over a tract of land on Long Island. In other words the advertiser was offering to sell the right of way in the superincumbent airspace over his subjacent land. Now did the property owner in offering the airspace above his property really have something which he could sell? Does airspace possess the element of property in the broad sense of the word so that it is salable? If so did the owner possess sufficient legal ownership of the airspace that would entitle him to sell it or grant an easement of passage through it? The Court of Appeals of the State of New York has laid down the doctrine that the space above land is real estate the same as the soil beneath, and that the law regards empty space as if it were a solid, inseparable from the soil and protects it from hostile occupation accordingly.[1]

Hence the question, "What About the Airspace?" By airspace of course is meant all that region above the lands and waters of the earth.

Doubtless to-day the question of ownership of the airspace is one of but remote interest to the average person. This lack of interest will be shortlived when airplanes, dirigibles and other aircraft become as numerous as was that of the motor car a decade ago. And that day is not far away. There were over sixty-seven per cent. more airplanes manufactured in this country in 1927 than were manufactured in the previous year and for the year 1928 there were about 5,000 airplanes produced. Furthermore there were over thirty-nine millions of miles flown by aircrafts in the United States during 1927,[2] and over sixty-five million in 1928. With improved safety factors receiving every attention it will only be a matter of a year or two when airplanes will be universally used, as one uses a motor car to-day, not in the same volume that cars are now in use it is true. But as to numbers, the airplane total will gain rapidly

* EDITOR'S NOTE.—It is obvious that this article was written for American readers, but the subject with which it deals is of such universal importance at the present time that we were induced to give space to it in the REVIEW.

[1] *Butler* v. *Frontier Telephone Co.*, 186 N.Y. 486.

[2] Aircraft Year Book for 1928, 421.

on the number of automobiles within the next few years. The present average daily air mileage in the United States is about 80,000 miles. To-day the airplane is one of the safest forms of travel. This statement may doubtless cause some surprise and evoke attempts of refutation. It is true nevertheless. In the United States Government air mail service there was but one pilot killed for every 1,413,381 miles flown in 1927. In the air transport service but one fatality for every 1,414,330 miles flown in the United States occurred in the same period.[3] Of the 52,934 passengers flown in schedule flying in 1928 there were but thirteen fatalities. The dreaded spin or spiral nose dive about which the average layman has in the past heard so often is now a rarity in aerial navigation. In fact there is now in wide general use a type of commercial plane which it is claimed cannot spin accidentally or otherwise. The plane in place of taking a spiral nose dive when stalled will settle on an even keel and under full control. There are many other safety features in the conventional plane of to-day such as the slotted wing, but their enumeration is beyond the scope of this article. In fact this digression was merely made to point out the fact that the airplane is a safe vehicle of travel and that its use is increasing so rapidly that it will be but a short time when planes will be constantly seen in flight. What then will be the extent of Mr. Average Citizen's interest when he awakens from his lethargy to discover that the airspace over his house and forty by one hundred feet suburban plot is being constantly traversed by airplanes? The presence of odors and noises, the occasional dropping of refuse and probably other objects on his property will arouse him to a sense of realisation that his possible domains are being used by others to whom he has not given any consent, actively at least. True the Air Commerce Regulation's air traffic rules require flight at a minimum height of one thousand feet in congested areas and five hundred feet elsewhere, but noise, odors, and refuse can penetrate both distances. Furthermore in taking off from a small field a plane must of necessity fly at lower altitudes over adjoining private property before gaining the minimum altitude requirements of the traffic rules. If Mr. Average Citizen is too deep in his slumber to be aroused by the aforementioned occurrences, he and his hard working helpmate may be greeted some morning by an embryo Lindberg, Chamberlin or Byrd crashing through their roof into the sanctity of their boudoir.

[3] Aircraft Year Book for 1928, 119.
[4] Section 74 (*g*).

The extent to which one's proprietorship in property extends upwards, and downward for that matter also, is expressed in the ancient maxim *cujus est solum ejus est usque ad coelum et ad inferos.* Translated the maxim means that he who owns the soil also owns everything from the center of the earth to zenith.

The principle laid down finds its inception in the Roman Law. Napoleon in formulating his famous code of laws incorporated the maxim therein.[5] Likewise it is found in modern civil codes, viz., that of Germany, Austria, Spain, Portugal, Italy, Holland, Uruguay, Argentine, Mexico, Japan and Switzerland. The provision in the German Code[6] limits the exclusive right to the superincumbent airspace and the extreme depth below the surface only to that part thereof for which the owner may ever have any practical use. The codes of the other nations mentioned also contain a similar limitation. This is an important limitation and should be borne in mind. Some of the states of the Union have adopted the maxim as part of their civil codes, notably California,[7] and the doctrine laid down in the maxim with some possible limitation is the common law of this country and is supported by court decisions,[8] but more of that later.

A better understanding of the whole problem may be gathered by going back about twenty-five years into the history of the development of aeronautical law from that time with occasional glimpses still much further back in years.

In his Institutes, Justinian states that the air like the sea is by natural right common to all. And in the latter part of the sixteenth century Queen Elizabeth said, "The use of the sea and the air is common to all." The great Queen and Justinian of course had no prophetic vision of the future of aerial navigation by modern aircraft, yet their statements were the basis to some extent at least of the so-called doctrine of "freedom of the air" which was strongly advocated in the first years of the present century. For it was from about the year 1902 that the history of air transportation really began. True, balloons were used by the late Count Zeppelin in our Civil War and also in the Franco-Prussian War, but the powered aircraft did not come until Orville Wright's epochal flight in 1903. And so from 1902 up to the time of the outbreak of the World War there were two schools of thought. One favoured the doctrine

[5] Code Napoleon, section 552.
[6] Section 905.
[7] Section 829.
[8] *Ryan* v. *Ward,* 48 New York, 204.

of "freedom of the air" while the other advocated the principle of "sovereignty in airspace." Fauchille, the French writer and lawyer, and a German writer, Dr. F. Meili, favoured the former doctrine while English authorities opposed it. The latter contended very strongly that the presence of any vehicle overhead was always a source of danger to the lands and waters beneath. The British authorities thus realised that Queen Elizabeth's and Justinian's pronouncements of "freedom of the air" had not withstood the acid test of practical application. Here was evidenced the first indication of the breaking down of the doctrine of "freedom of the air." The practical problems of the World War sounded the death knell to the doctrine that the air is free as is the sea, for soon thereafter the doctrine of air sovereignty gained the preponderance of weight of expert authority. The World War proved that in time of crises national governments assert their sovereignty in the airspace over their territory. And so at the first international convention held after the war the doctrine of air sovereignty was definitely settled. This was the International Air Navigation Convention held in Europe in October, 1919, and it adopted the provision that the contracting States recognise that every State has complete and exclusive sovereignty in the airspace above its territory and territorial waters.[9] On May 31, 1920, the United States signed the Convention, but as the Senate has not ratified it, it never became binding on this country. It appears that in 1913, at Madrid, Spain, the International Law Association had adopted the doctrine of air sovereignty, but of course it had not the authority and element of finality because of the very nature of the organization that adopted it. The convention of 1919 also adopted a provision which accorded the right of innocent passage by subjects of one sovereignty over the lands of another, but such right is merely a temporary and contractual one which can be revoked when occasions require its nullification.[10] Thus came about a complete abandonment of the principle of "freedom of the air." Here is seen a tightening and restricting of the use of airspace. It is now well settled that the sovereignty in airspace is in the country whose lands and waters are beneath. In the United States, the sovereignty in airspace is in that of each State, subject to the disputed federal jurisdiction over interstate aerial navigation.

Many of the States of the Union have by specific legislative enactments declared their sovereignty in the airspace over the lands

[9] Article 1.
[10] Article 2.

and waters within their respective jurisdictional boundaries. Among those that have so declared themselves are Vermont, Delaware, Maryland, Pennsylvania, Tennessee, Indiana, Michigan, North Dakota, South Dakota, Utah, Idaho, Nevada, Rhode Island and the Territory of Hawaii. These States have expressed themselves by saying that the sovereignty in the space above the lands and waters of the State is declared to rest in a State, except where granted to and assumed by the United States, pursuant to a constitutional grant by the people of the State.[11] Michigan and Hawaii omit the exception.[12] Other States have indirectly asserted their sovereignty in airspace through the enactment of certain statutory provisions with reference to the operation of aircraft.[13] Only recently New York State passed a law which became operative on September 1, 1928, declaring it a crime to navigate an aircraft while intoxicated.[14] Again it is found that because of our dual organisation of government that the sovereignty in airspace is divided among the several States, subject to the possible qualification of control over interstate commercial traffic by the federal government. On account of this division of power between the federal government and the States problems in jurisprudence have arisen.

With this digression showing the development of aerial law first as between nations and then local States, comes the question of individual proprietorship in airspace by the owners of the subjacent lands. Vermont, Delaware, Maryland, Pennsylvania, Indiana, Michigan, Rhode Island, North Dakota, South Dakota, Utah, Nevada, Idaho, Tennessee and the Territory of Hawaii have again spoken and enacted a provision of law which provides that the ownership of space above the lands and waters of the State is declared to be vested in the several owners of the surface beneath, subject to the right of flight.[15] Idaho however has eliminated the clause "subject to the right of flight."[16] Hence there are fourteen States in the Union that by statutory enactment indorse indirectly at least in part the maxim *cujus est solum ejus est usque ad coelum et ad inferos,* subject to the important limitation of the right of flight however as to thirteen of them. California, as heretofore stated, has adopted the principle of the maxim in her civil code. The particular provision states that the owner of land in fee has the right to the

[11] Uniform State Law for Aeronautics, section 2.
[12] Michigan 1923, No. 224; Hawaii 1923, Act 109.
[13] Chapter 233, Laws of New York 1928, General Business Law 240-244.
[14] Chapter 408, Laws of 1928, Penal Law 1222.
[15] Uniform State Law for Aeronautics, section 3.
[16] Idaho 1925, chapter 92.

surface and to everything permanently situated beneath or above it.[17] This with the Idaho law is another challenge to the soundness of the doctrine that the "air is free." Of course this doctrine was originally applied as between sovereign States, but the general expression "the air is free" is in some instances now being denied to persons within political subdivisions. It can be readily seen that there is conflict on the question among the States. The thirteen States which have conceded the ownership in the airspace to the subjacent land owners subject to the right of flight, as well as the State of Idaho, have further amplified their position in the matter by stating that flight in aircraft over the lands and waters of a State is lawful, unless at such a low altitude as to interfere with the then existing use to which the land or waters, or the space above the land or water, is put by the owner, or unless so conducted as to be imminently dangerous to persons or property lawfully on the land or on the water beneath.[18] This restriction of the subjacent landowner's right of proprietorship in the superincumbent airspace it will be recalled is similar to that imposed by the German Code.[19] Idaho's stand in legalising flight is an assertion of her police powers, and its legality is open to question.

A brief review of some of the judicial decisions to determine what practical application has been given to the doctrine set forth in the maxim *cujus est solum ejus est usque ad coelum et ad inferos*, should prove illuminating. In a Georgia case it was stated that the owner of realty having title downwards and upwards indefinitely, an unlawful interference with his rights, below or above the surface, alike gave him a right of action.[20] An Iowa court decided that the placing of one's arm over into the space above the land of another was a trespass for which one was liable.[21] This court stated that it is one of the oldest rules of property known to the law that the title of the owner of the soil extends not only downward to the center of the earth but upward *usque ad coelum*. It was stated by a British court that it would be reluctant to deny that a landowner had not the right to object to one putting anything over the owner's land at any height.[22] Firing a shot across the lands of another was

[17] California Civil Code, section 829.
[18] Uniform State Law for Aeronautics, section 4.
[19] Section 905.
[20] *Markham* v. *Brown*, 37 Ga. 277.
[21] *Hannabalson* v. *Sessions*, 116 Iowa, 457.
[22] *Board of Works for the Wandsworth District* v. *United Telephone Company Ltd.*, 13 Q.B.D. 904.

ruled an actionable wrong in Minnesota[23] and English courts.[24] Also the stringing of telephone and telegraph wires was held to be a trespass by a New York court.[25] In this case the Court said that so far as the case before it was concerned, the plaintiff as the owner of the soil owned upward to an indefinite extent. In California it was decided that an owner of land had the right to cut off the limb of a tree which overhung his property, although the tree grew upon the land of another.[26] In this connection a New York Court held that an action for trespass would lie against one whose trees hung over into the space of another's property.[27] An English Court has decided that an action would lie against one whose horse kicked into the space over the land of an adjoining owner. Pollock states that it does not seem possible on the principles of the common law to assign any reason why an entry above the surface should not be a trespass. *The Law Journal*, London, April 27, 1929, states as follows:

> To the question, therefore, whether an action for aerial trespass will lie, no definite answer can be given. But, as Pollock observes, there seems no reason or principle why there should not be such a trespass. The development of civil aviation may bring this aspect of trespass into prominence and lead to a clarification of the present obscurity.

On the other hand there has been two quite recent decisions, one in Pennsylvania[28] and one in Minnesota, in which it was held in effect that an aircraft does not commit a trespass in passing in flight over the lands of another. In the Pennsylvania case an owner of land sued an aeronaut for trespass because of the noise created in flying over his property. The Minnesota case also was one for damages and to enjoin the defendant from flying over plaintiff's property. In this case[29] the Court said that the upper airspace is a natural heritage common to all of the people, and its reasonable use ought not to be hampered by an ancient and artificial maxim of law as 'Whose the soil is, his it is from the heavens to the depth of the earth," and that to apply the rule as contended for would render lawful air navigation impossible because if the plaintiff could prevent flights over his land, then every other land owner could do the same thing. While these two cases were decided by lower courts they are important because they have ruled directly on the question

[23] *Whittaker* v. *Stangvick*, 100 Minn. 386.
[24] *Clifton* v. *Bury*, 4 T.L.R. 8.
[25] *Butler* v. *Frontier Tel. Co.*, 186 N.Y. 486.
[26] *Grandona* v. *Lovdal*, 78 Cal. 611.
[27] *Hoffman* v. *Armstrong*, 48 N.Y. 201.
[28] *Commonwealth* v. *Nevin & Smith*, Court of Quarter Sessions, Jefferson County, Pa., July, 1922.
[29] *Johnson* v. *Curtis Northwest Airplane Co. et al.* (unreported).

of the right of aircraft to use the superincumbent airspace over the private property of others.

The proponents of the maxim for support rely on the judicial decisions, the maxim itself, its incorporation in various judicial codes, its acceptance and adoption by expert legal authorities from Blackstone[30] and Coke[31] down to more modern and contemporary authorities. A United States Senator at one time induced a bill in Congress which recognised the private landowner's right to forbid flight over his property with the right to collect damages in the event of the violation of such alleged right. The measure also provided for the right of injunction to prevent such flights.[32] A former committee of the American Bar Association has stated that it confesses that the maxim *cujus est solum, ejus est usque ad coelum* does not in terms at least admit of the invasion of private right in time of peace for military purposes. This committee, however, opposes the doctrine set forth in the maxim. Another authority on aeronautical law admits that two of our states treat an aircraft passing in flight over the private property as a trespasser. Major Elza C. Johnson while Legal Adviser of the Air Service of the United States, stated that the space above the earth is fixed and all that belongs to it is private property, to which the owner is entitled to unmolested enjoyment without added and unecessary dangers. That is a very strong support for the *usque ad coelum* theory. A quotation or two of the Major's in an Air Information Circular published by the Chief of Air Service should prove interesting at this juncture. He wrote:

> The navigation of the air must depend entirely upon the question of who owns the space above the earth. If the common law rule is recognized that the space above the earth belongs to the owner of the earth, then no power exists in the Constitution of either State or Nation to deprive the individual owner of any rights to the free use and occupancy of that space as long as he does not molest the private ownership of his neighbour. No one has any right to cross his property with an airplane and trespass upon his right to enjoy without danger or fear of danger.

This is a frank statement from one so closely interested in the development of aviation. Major Johnson deserves considerable commendation for his courageous stand. He is whole heartedly for the advancement of aeronautics, but he apparently believed that it should be developed on a legal foundation along constructive lines

[30] Blackstone Comm., 4th edition, 18.
[31] Coke on Littleton, 4a.
[32] Senate 2593, July 1919.

rather than by means of makeshift measures and subterfuge. Writing further he said:

> The basis of all starting of air navigation then must necessarily be the grant from the individual.
>
> It is my opinion that the question should be stripped of all camouflage and hope of getting by, and met squarely as it is. I do not believe that we can long hide behind the provisions of police owner, interstate commerce, post roads, general welfare, or common defense, if we do not first settle the individual right and obtain Federal control of the air.

Major Johnson also stated that any use of the air is unauthorised and is so used in the navigation of aircraft other than Government by mere permission which does not establish either right or jurisdiction: and that even the Government, other than in war times, would have no inherent right to operate aircraft over private property for carrying mail or military training, and therefore it is highly desirable to face the situation as it is in order that steps may be taken to open up avenues of aeronautical interest sufficient to insure the best results in military and naval aviation. He further stated that under the present grants and prohibitions of the constitution and the common law rule of ownership of space above property, neither the United States Government nor the States have any jurisdiction over the air. Major Johnson also further wrote:

> It would appear, and it is my opinion, that steps should be taken at once to obtain federal control of the air by direct grant of the people. I am of the opinion that this must be done before any rights to use the air exist, notwithstanding the claims to the contrary.

There appears to be no reason why the soundness of the law as stated by Major Johnson a few short years ago is not equally good law to-day.

Many arguments ingenious and otherwise have been advanced against the proposition that the superincumbent airspace is free to aerial navigation. Opponents of the maxim contend that it is obsolete and has no modern application in the light of present inventions and that if aircraft is to be of any practical use, such ancient and obsolete maxims are to be disregarded. Furthermore they contend that if the maxim is to have any application at all, it must be liberally construed. In other words the proprietorship in the overlying airspace insofar as the subjacent owners are concerned is to be limited to such airspace that is appurtenant to the land, or stated in other words, the ownership of property extends only as far upward as the necessities and protection of it require. To that extent and that only it is claimed is the maxim to receive any application.

It is further asserted that the mere passage of aircraft over one's lands and waters at such a height as not to interfere with the use thereof by the owners is not an actionable wrong. This it will be recalled is the view taken by the fourteen states previously mentioned and which have adopted the Uniform State Law for Aeronautics. It is also stated that the ownership in the overlying airspace has been lost by subjacent owners by reason of failure to use the space. Such claim is certainly highly amusing for without modern aircraft or the general use of the balloon it is inconceivable how the upper strata could have been previously made use of. And if one had so used the upper airspace above his property would it then be considered as private property? Carl Zollman in his *Law of the Air* also has advanced the argument that in the South and West in years gone by no one ever objected to cattle roaming over one's land which was not inclosed, therefore an aircraft flying over one's property should be free from a claim of trespass.[33] He further states that no one would complain about a baseball[34] being flown across one's land or of one's pigeons[35] or other birds flying over another's property. This is probably true if the baseballs and pigeons were not too numerous. And so the analogies run. Some have objected that to strictly construe the maxim would be to impede the progress of science and that therefore strict application should not be made to extend to conditions which did not exist when the maxim was in the process of development. The ancient doctrine of minerals with reference to the ownership beneath the surface which limited such ownership is claimed by analogy to apply to the limitation of the ownership of the airspace by the subjacent owner. Likewise the modern doctrine of the ownership of a vein under another one's land through ownership of its apex, in the law of mines, is sought to be applied to the superincumbent airspace.[36] Under the ancient law of roads the element of passage or the right to proceed with one's journey was deemed a superior right over the right of adjacent ownership and consequently if a road was blocked, the traveler had a perfect right to pass over the property of the private property adjoining the road. The traveler had the right to pass even if in doing so he had to walk over growing crops. This is presented as another example of the limitations to which the airspace ownership is subject. Another analogy is ad-

[33] Law of the Air: Zollman, p. 16.
[34] Law of the Air: Zollman, p. 20.
[35] Law of the Air: Zollman, p. 21.
[36] Report of Special Committee on the Law of Aviation, Amer. Bar Assn., 1921, page 19.

vanced in the private ownership in the bed of a stream. It is contended that the easement or right of the public to pass over the waters, the bed of which is the private property of another, is identical with the right to pass in flight through the airspace over private property. The analogy is admittedly a very excellent one to say the least. Another ancient law evoked is the one which required a property owner to keep his land clear of bushes for a distance of some two hundred feet on each side of a highway in order that no highwaymen might be able to hide behind bushes bordering the road. This is claimed to be similar to the right to leave free for the passage of aircraft a certain border or part of the overlying airspace. The ancient law made the adjacent owner liable to any person robbed by reason of the highwaymen being afforded a hiding place due to the failure of the owner to keep clear the strip of land for the required distance. At the risk of being facetious it might be stated that no mention is however now made by those offering the analogy that if the clouds are not swept away by the subjacent land owner he might be liable for any robbery committed by highwaymen navigating in the upper strata. Even the legality of the New York rent laws is advanced to illustrate the extent to which private property is subordinated to the public interest and so in the interest of air navigation the ownership of the airspace should be so restricted.[37] Also it is pointed out that the decisions of the courts with the exception of the Pennsylvania and Minnesota decisions heretofore mentioned have applied the latin maxim to airspace only immediately adjacent to the soil and not to the upper airspace in which aircraft passes in flight. A former committee on aviation of the American Bar Association has called the *usque ad coelum* theory a prepossession and a bugaboo.[38] This same committee maintained that it is incumbent upon private owners to demonstrate the extent of their private ownership in the upper airspace to the exclusion of common right. The committee has further stated:[39]

> We feel that this committee can do no more beneficial service to the public and the common interest of all the people than to challenge the proposition that it is an invasion of the rights of private ownership of property to utilize the air for purpose of flight.

[37] Report of Special Committee on the Law of Aviation, Amer. Bar Assn., 1921, page 19.

[38] Report of Special Committee on the Law of Aviation, Amer. Bar Assn., 1921, page 14.

[39] Report of Special Committee on the Law of Aviation, Amer. Bar Assn., 1921, page 18.

We feel that the essential interest of air flight demands that jurists and lawyers should not be led into any supine concession that our law already invests in private ownership the private right to exclude fliers from the air.

We cannot too often urge that the extent of private ownership in the airspace so as to embarrass public travel through the air is itself a new question in jurisprudence not to be passed over, by concession or properly solved by indifferently yielding to claims of private ownership which are not a necessary consequence of principles already recognized in the law of private property.

We submit that in this branch of jurisprudence those effected by the subject matter should not be contented to follow in the groove of judicial precedent without that broadness of vision which comes from the study of fundamental concepts of right as expressed by philosophical writers and thinkers, both of our own and other nations.[40]

The committee concludes with the statement that the question of ownership of airspace should be discussed, debated and yielded only to the extent that the private owner may demonstrate according to the accepted tested principles of jurisprudence that the claim is an essential part of private property. In an article published in the *American Law Review,* Edmund F. Trabue has also reiterated the proposition that the Latin maxim in question is applicable only to such airspace as is appurtenant to the land.[41] The late Simeon E. Baldwin, former Governor of Connecticut and a high legal authority on aeronautical as well as general law, stated that the owner of land has no legal right in the airspace above it except as far as its occupation by others could be of injury to his property.[42] Two opposing Latin maxims have been offered to combat the *usque ad coelum* doctrine. One is *damnum absque injuria* which means, of course, damage without injury. If one is passing in flight over the private property of another and causes no damage, then it is contended that even though the upper airspace might be conceded to be the property of the subjacent owner, he has no cause to complain because he suffered no damages resulting in injury.

The other maxim is *de minibus non curat lex.* Translated it means the law gives no reward or damages for insignificant things. It is urged that the mere passing in an airplane through the airspace at a considerable height is so inconsequential insofar as interfering with the subjacent owners' use and enjoyment of the land beneath that no court would be bothered with any trivial action for damages or trespasses.

[40] Id., p. 20.
[41] The Law of Aviation, American Law Review, page 87, vol. 58, No. 1, 1924.
[42] Am. J. Int. L. 95.

Professor George Bogert in an article in the *Cornell Law Review* stated, in speaking of the *usque ad coelum* rule:[43]

> But, notwithstanding the persistence of the rule, its application in the space not immediately adjacent to the soil and structures on the soil is wanting. All the decisions are regarding intrusion into the space very near the surface, where the actual use of the soil by the surface occupant was disturbed. It is believed that an examination of the cases will show that *cujus est solum* is not law, but is merely a nice theory, easily passed down from medieval days because there has not been until recently any occasion to apply it to its full extent.

Opposed to Major Johnson's pronouncements in the Air Service Information Circular, is a more recent circular prepared by Captain Rowan A. Greer, likewise of the Judge Advocate General's Department of the United States Army. In the circular the Captain has written:

> If the maxim of '*cujus est, solum ejus usque ad coelum*' be conceded as the law without limitation of its broad terms, then it may likewise be conceded that the conclusions advanced by Major Johnson are logically sound. However, it is respectfully but earnestly submitted that no court or authority has gone so far as to announce that this old Latin phrase of who owns the soil owns also up to heaven means that no one has a right of passage through the air spaces that in no way interferes with the full enjoyment of the possession of the subjacent soil and causes no actual damage to the owner of that soil. A careful examination of the origin of this maxim shows it merely to have been the pronouncement in a textbook or treatise of a blackletter principle. Indeed, until the last quarter of a century man has not developed any inventions or facilities that would give rise to the necessity of an acceptance of this precept in its broadest aspect, and it is not therefore fair to say that it is a recognized "common-law rule."

Here we have two opposing views by officers of the Judge Advocate General's Department of the United States Army. It should be here noted however that they do not differ on the question of who owns the airspace, but only as to the extent of the subjacent owners' proprietorship in the superincumbent airspace. Major Johnson appears to have gone more exhaustively into the subject, whereas Captain Greer seems to have been contented to accept the dicta of—well let it be said the more popular viewpoint.

If there can be no agreement between the advocates of the two opposing doctrines, the proposition might be advanced that the superincumbent airspace is new territory like some undiscovered lands of the arctic region or some newly discovered island, and therefore the airspace is free to all of those citizens of the nations whose

[43] Problems on Aviation Law, Cornell Law Quarterly, vol. VI., p. 271.

territories lie beneath. But of course this proposition presents other questions. How much of the airspace is free and undiscovered territory? How much of it is appurtenant to and necessary to the full enjoyment of the private owners of the land beneath? Who is to decide how much of the subjacent owner's common law right in the space above his land is to be allowed to him and what part is to be denied to him? This only brings one back again to the *usque ad coelum* maxim. But the proposition of newly discovered territory and the questions that arise therefrom illustrate that for all practical present day purposes the problem is one of degree. In other words where is the line of demarcation to be drawn and at what height is the exclusive right of possession by the subjacent owner to terminate?

Some opponents of the maxim *usque ad coelum*, who attack it on the ground that it is ancient and obsolete, in their contention that the air is free, themselves evoke other ancient and obsolete maxims. In one statement they say that an owner of land has no proprietorship in the superincumbent airspace and in the next statement they admit indirectly that he has such ownership by they themselves advancing such doctrines as the ones of the ancient law of roads, ownership of minerals, the public easement of the use of navigable waters and the other ones as well as legal maxims which have been previously alluded to. Through their indirect admissions by their application of analogies they admit proprietorship by the land owners in the superincumbent airspace, but in fairness however it should be observed that such indirectly admitted ownership is restricted and limited. To some extent this has been the reasoning of the committee of the American Bar Association in spite of some of its utterances heretofore quoted. This is not offered as a criticism however, but is submitted as proof that after all there is not such a great difference of opinion between the two schools of thought on the question of ownership of the upper airspace by the subjacent owners. A careful analysis of the contentions on both sides of the proposition will disclose the fact that ownership is admitted either directly or indirectly, but with the important distinction made by those opposed to the *usque ad coelum* theory that ownership is limited to those uses which are appurtenant to the land and to the full enjoyment thereof. In other words ownership is limited to the zone of effective possession. This it will be recalled is the position taken by those states that have adopted the Uniform State Law for Aeronautics.[44]

[44] Uniform State Law for Aeronautics, section 4.

Likewise this stand is in accord with the civil codes of the various nations previously noted. In other words private owners own the airspace above their property subject to the right of flight and the non-interference with any use they may choose to make of their property. Of course this limitation is a significant one. No one can foretell or possess a vision sufficiently keen that he can prophesy in the least what new scientific inventions may be in use within the next quarter of a century or less, that in the use thereof in connection with one's lands may conflict in no small degree with the theory of the right of flight. It is for this very reason that fundamental property rights should not be too readily cast aside. That which may be denied to subjacent owners to-day may be an urgent necessity to them and the world in general to-morrow. Great as are the benefits to be derived by mankind through the use of aircraft, and those benefits cannot be exaggerated or their full scope prophesied, yet who can deny that some invention may yet arise within the lives of the next generation or two which may be a far greater benefit to mankind than is that of aeronautics. And if the needs of the one conflict with the other the weaker must yield. As a means of local travel the horse-drawn vehicle and the bicycle have become almost extinct. Who would have dared to predict that thirty years ago? Who can tell what is the future of the motor car now that the airplane is here? The ultimate vehicle may be a combination automobile and airplane that will permit of both air and land travel.

The provision of the Air Commerce Act providing that the airspace above the minimum safe altitude of flight prescribed by the Secretary of Commerce shall be subject to a public right of freedom of interstate and foreign air navigation in conformity with the requirements of the Act,[45] has not settled the question as to what extent the legal maxim *usque ad coelum* is to have legal application in the light of the development of modern air navigation. Through the alleged power of the Commerce Clause in the Federal Constitution, the aforementioned provisions of the Air Commerce Act do however attempt to assert the right of freedom of aerial navigation for interstate and foreign commerce purposes superior to the right of subjacent landowners to use the airspace to any extent or degree which may interfere or conflict with the use thereof by interstate and foreign air commerce. The legality of this assertion of the right of freedom of aerial navigation for interstate and foreign commerce is not to go unchallenged.[46] The

[45] Section 180.
[46] *Story* v. *New York Elevated R. R. Co.*, 90 N.Y. 122.

theory of course is that Congress has the power under the Commerce Clause of the Federal Constitution to regulate all foreign and interstate commerce whether it be on the water, on the land, or in the airspace. Also has been advanced the analogy that the Supreme Court of the United States has regarded the right of the owner of shore or submerged land as being restricted to the superior right of the public in general, and as the result the United States may assert its right against individual owners of land in the interest of interstate and foreign air commercial navigation. In this connection the United States Supreme Court has decided that the right to improve navigation is paramount to the riparian owner's right of access to a stream.[47] Consequently is evoked the Commerce Clause, that "cure all" for all doubtful legislative action. The power of Congress to regulate interstate and foreign commerce through the medium of the Commerce Clause is subject to the limitation of other provisions of the Federal Constitution.[48] Reference is made particularly to the Fifth Amendment, and which it will be recalled provides in part that no person shall be deprived of life, liberty or property without due process of law nor shall private property be taken for public use without compensation. Whether or not the provisions of the Air Commerce Act in providing that the airspace over private property is free to interstate and foreign air navigation, is depriving one of his property without due process of law and is an unwarranted exercise of federal power are questions for very serious consideration. On this latter proposition the Special Committee on the Law of Aviation of the American Bar Association has stated:

> The Constitution neither expressly delegates to the United States powers over air flight as such nor prohibits them to the states; presumptively, therefore, they still reside either with the states or the people, but they do not reside with the United States nor with Congress.
>
> While we also recognize that as incidental to the power to levy taxes, or to regulate interstate or foreign commerce, or to pass laws to carry out the provisions of treaties, or in the exercise of other specific powers. Congress may legislate respecting air flight, we also recognize that without an unprecedented extension of the claims of the exercise of constitutional power, and unprecedented judicial recognition of an unprecedented claim, there can be no complete control of the subject matter by national legislation.

It will be recalled that this same committee opposed the *usque ad coelum* doctrine. Their objection however to the application of the Commerce Clause to aerial navigation is on other constitutional grounds and has nothing to do with the question whether or not

[47] *Scranton* v. *Wheeler*, 179 U.S. 141.

[48] *U. S.* v. *Delaware & Hudson Co.*, 164 Fed. 215; *Monongabela Navigation Co.* v. *U. S.*, 148 U.S., 312

subjacent owners have the right of proprietorship in the superincumbent airspace. This directs attention to the fact that federal control of aerial navigation not only involves the proposition whether or not private property rights are being invaded under the *usque ad coelum* doctrine, but it raises the additional question whether such assumption of power by the federal government is not an encroachment on the sovereign powers of the individual states. The Federal Constitution provides that the powers not delegated to the United States by the Constitution nor prohibited by it to the States, are reserved to the States, respectively, or to the people.[49] It has been held that the sovereignty of a State embraces the power to execute its laws and the right to exercise supreme dominion and authority except as limited by the fundamental law.[50] Also it has been ruled that speaking generally, the police power is reserved to the State because there is no grant thereof to Congress.[51] And in the exercise of police powers by a State, it has the authority to regulate, among other things, matters which promote public peace, comfort and convenience.[52]

The American Bar Association Special Committee favoured at the time of its existence an amendment to the Federal Constitution giving federal control over aeronautics. Assistant Secretary of Commerce William P. MacCracken, Jr., and who until recently was in charge of the Aeronautics Branch of the Department of Commerce was a member of the committee. It stated as follows:

> And in our judgment the unquestionable method is a constitutional amendment conferring the power on Congress to legislate respecting aeronautics and aerography. Any other method will be the method of indirection, subterfuge and consequent conflict; and such indirect methods, though they appear to have been the methods of national growth in our body politic, are fraught with the danger, which is constantly manifest, of practical repeal by aggression and in an unconstitutional way of those constitutional limitations, which are our fundamental bill of rights the main feature of that monument of our institutions, the Constitution.
>
> While we are in entire accord with the view that independent and conflicting state legislation will hamper the development of aviation, we see in this no constitutional excuse for assuming unconstitutional powers or for making unconstitutional use of existing powers. In our judgment it points to the necessity of constitutional amendment.
>
> The interest of aeronautics demand that the power of the federal government shall be extended (but by constitutional amendment) to this subject matter, they (the members of the committee) do not regard the exist-

[49] 10th Amendment.
[50] *People* v. *Tool*, 117 Am. St. Rep. 198.
[51] *Keller* v. *U. S.*, 213 U.S. 138.
[52] *Beer Co.* v. *Mass.*, 97 U.S. 25.

ence of the subject matter as sufficient excuse for ignoring either the Constitution or the States.

Constitutional problems and fundamental theories respecting an indestructible union of indestructible states, each operating within its own sphere of sovereignty, with the national government a government of delegated powers and all other powers reserved to the states or the people, make no appeal to those who are impatient to see the actual commercial development of air flight and who recognize, or think they recognize, its possibilities; and who also recognize that the economic barriers now existing to such development are barriers whose foundation is law, or uncertainty of law, or absence of law.

The pronouncements of the Committee were made several years ago, but if they were the correct exposition of the constitutional phases of the question then they are equally sound to-day.

The situation of aeronautical law at the present time finds the federal government, through the Air Commerce Act, acting under the doubtful authority of the Commerce Clause of the Federal Constitution in assuming control over interstate and foreign commercial aerial navigation and all navigation whether commercial or non-commercial, interstate or intrastate insofar as air traffic rules are concerned. On the other hand most of the States have assumed control over certain phases of intrastate aerial navigation through the exercise of their respective police powers.[53] But if the common law rule of unrestricted ownership in the superincumbent airspace by the subjacent land owners is still good law, then neither the federal nor the State governments have any authority to authorise flight of aircraft over private property.

In justice to aeronautics the law should not be left in this unsettled state. Obviously there are very serious legal problems that must be solved. The law should not remain in any befogged condition. Only complete clarification will suffice. The policy in the past to some extent at least has been to take the easiest road, to legalise flight regardless of fundamental and vested property rights and constitutional restrictions. Indirection and invasion are only makeshifts at best. True the progress of aeronautics should receive every encouragement and nothing should be done to retard its advancement. The advancement of aeronautics is to the enrichment of the country as well as a very potential arm of national defense.

JOHN A. EUBANK.

New York.

[53] Connecticut, 1927, chap. 324; Arkansas, 1927, Act 17; Colorado, 1927, H. B. 79; Kansas, 1921, chap. 264; Louisiana, 1926, Act 52; Maine, 1925, chap. 185; Mass., 1925, Act 189, sec. 41-59; Michigan, 1927, Act 138; Pa., 1927, Acts 164 & 250; Wyoming, 1927, chap. 72; Idaho, chap. 137, 1929; Pennsylvania, chap. 317, 1929.