THE LAW OF THE AIR-SHIP

The lawyers in every country have been kept busy during the last century in developing a special body of law, first for the railroad, then for the telegraph, and then for the telephone. They must soon address themselves to a new task of the same nature. The air-ship has at last been brought to a state of efficiency which, while far short of perfection, takes it out of the field of mere experiment and seems to assure its speedy employment in the transportation for hire of passengers and goods. Other uses of less worth to the community or of absolute detriment are equally certain. It will be seized as an aid in evil-doing by smugglers, spies, burglars; by criminals of all sorts flying from justice; and for illicit trade of every kind. It flies over the borders of one sovereignty into those of another as swiftly and irresponsibly as a bird. How far must it be the subject of public regulation? How fully can the precepts of private law which have been found applicable to other conditions and relations be applied to those resulting from the introduction of this new agency of power? Can there be one world-law for the high air, as there is one world-law for the high sea? Can such rules as those of general average and maritime lien be applied by analogy to aërial navigation?" [1]

Is there, let us first ask, a right to navigate the air?

Justinian tells us that the air, like the high seas, is by natural right common to all.[2] In the sense that all can breathe it in as they have opportunity this is certainly true; but it can hardly be accepted as a proposition of jurisprudence with respect to its use for the support of a vehicle of transportation.

It has been abundantly settled by physiologists that the pectoral muscles of a human being are too weak to move anything in the

[1] See discussion of this point by Meyer, *Du Domaine aérieu et de sa Réglement ation juridique.* Clunet's *Journal*, 1909, p. 687.

[2] Inst. I, 1, *de rerum divisione*, § 1; Dig. I, 8, *de divisione rerum*, § 2, 1.

nature of wings in such fashion as to keep him afloat in the air. He must rely on the strength of some kind of mechanism, or on being buoyed up by something lighter than the atmosphere like balloons or balloonets, or on both. He is contending against the force of gravity; and the force of gravity never slumbers or tires. Every moment that he is being carried above the earth the structure that supports him is to some extent endangering the safety of all who are beneath it. Can it be said to be the natural right of any man thus to put in peril the lives and property of so many other men?

But if not a natural right, may it not be fairly regarded as one that can be acquired from the state?

Every independent nation must have the right to regulate the use of the air above its territory in such manner as best to promote the public interest.[3] Its power extends to everything which man in the ordinary course of things can reach or appropriate on, or below, or above its soil. It is, in a sense, the ultimate owner of the soil and all upon it. It can tax it to any extent within the bounds of reason. It can reclaim any part of it for its own use on paying the owner just compensation, though it be taken against his will. In respect of the air-ship it will be dealing with a new means of making the air useful to its people. They will have an undoubted interest in having its utility promoted and its perils minimized. If it were to be granted, then, that no individual could navigate the air at will, it would not follow that the state could not give that privilege to whom it pleases, under such conditions as would further the public good. Every railroad is built and operated under a franchise from the state. Why? Because its construction and operation invade the tranquillity of individual land-owners, endanger the safety of person and property, and may obstruct public travel by other means (as at highway crossings). This franchise often grants the railroad company power to enter on the lands of private individuals, without seeking their consent, for the purpose of making preliminary surveys, and without making any compensation unless damage be act-

[3] Grünwald would divide the air into a lower zone, in which there are rights of property, and a higher, where there are only spheres of influence. See *Journal de Droit Privé*, 1908, No. 7–9, 1058.

ually done. The public interest is deemed to justify this because otherwise the best route for the railroad could not well be known. In like manner it may justify the grant to the proprietors of an air-ship of the right to navigate the air under proper restrictions and for proper purposes.

Such a grant might take the shape of a bare license or of a franchise. Would not a franchise so obtained be a justification within the jurisdiction of the sovereignty from which it came, as against any adverse claim of private right? If to sail an air-ship would otherwise be either a public or a private nuisance, would not the franchise render it lawful and therefore no nuisance?[4] This would leave the owner of land under air in a position analogous to the owner of land under water. He may have an estate in fee simple, but it will be subject to a right of regulation, as to the use of the air, in the interest of the public, by public authority.

But has a land-owner such a right in the air above his property that, even were there no franchise for it, he could complain of legal injury from the use of it for an air-ship voyage?

In Coke on Littleton[5] we are told that the owner of land owns upwards the "Ayr, and all other things, even up to Heaven for, *cujus est solum, ejus est usque ad coelum.*" This maxim was not derived from the nation whose language is used for its statement and, as we have seen, is foreign to the conceptions of the Roman law as to what is the common property of all. It is the production of some black-letter lawyer, and, like every short definition of a complex right, must be taken with limitations.

It would seem that one of these must be that a proprietor of land cannot be heard to complain of any use of the air above it by which no injury to him can result. In other words, the law will hardly aid him by giving a remedy in court where there has been and could have been no actual damage. His right, if any, is too tenuous for the state to care to protect by its active intervention.

Perhaps we may go farther and say that he has no legal right at all over the air above his land, except so far as its occupation by others could be of injury to his estate.

[4] Baldwin's American Railroad Law, p. 28.

[5] Page 4.

This seems to be a view quite in accordance with the spirit of our times. Modern government tends, at all points, to push the public good farther and farther into what was formerly thought the inviolable domain of private right.

The German Imperial Code of 1900 has expressed this tendency with particular relation to the subject under discussion. Two of its sections read thus:

904. The owner of a thing is not entitled to forbid the interference of another with the thing, if the interference is necessary for averting a present danger and the threatened damage is disproportionately great in comparison with the damage arising to the owner by the interference. The owner may require compensation for the damage arising to him.

905. The right of the owner of a piece of land extends to the space above the surface and to the substance of the earth beneath the surface. The owner may not, however, forbid interference which takes place at such a height or depth that he has no interest in its prevention.[6]

Another principle of Anglo-American law may be invoked, in determining the title of a landed proprietor to the protection of the state against invasion of what he claims to be his aërial rights.

The air-ship is a thing of passage. It flies in a second of time from a position over the soil of one man to a position above that of his neighbor. It carries to each and to all beneath it the same menace. It imperils the public generally.

Now an injury to the public is to be redressed by an action in behalf of the public. The offender is not to be vexed with separate actions by every member of it. One is enough to settle his liability and to settle it in favor of all those whom he has wronged. Only if special damage be suffered by some particular individual can he bring an individual suit for his own indemnification.

Should the air-ship drop a sand-bag in its course which strikes and wounds any individual, he would have at least a *prima facie* right to sue for damages whether he be or be not the owner of the land upon which he received the shock. The proprietor of the ship in whose service it was sailing and his servant, the master of the ship, would be equally liable. The Roman law would give such an action, whether

[6] The new Swiss Civil Code, § 667, has substantially the same provisions.

the accident was or was not due to the immediate fault or negligence of the aëronaut.[7] He has violated the cardinal rule *alterum non laedere.* Its principles in this respect are well summed up and rounded off in Art. 1383 of the *Code Napolèon,* in its provision that *" Tout fait quelconque de l'homme, qui cause à autrui un dommage, oblige celui par la faute duquel il est arrivé, a le réparer."* The Supreme Court of the United States, however, has spoken of this as too rigid a rule,[8] and more modern codes are couched in somewhat different terms. That of Japan (Art. 709) states it thus:

A person who intentionally or negligently violates another's right is bound to make compensation for damage arising therefrom.

The original project of the Imperial German Code excluded, in certain cases, damages that could not have been anticipated. As adopted, Art. 823 reads thus:

Wer vorsetzlich oder fahrlassig das Leben, den Korper, die Gesundheit, die Freiheit, das Eigenthum oder ein sonstiges Recht eines Anderen widerrechtlich verletzt, ist dem Anderen zum Ersatze des daraus entstehenden Schadens verplichtet.

An interesting question of pleading under the common law system would arise in drawing a declaration against an aëronaut for dropping anything upon another. Should it allege the breach of duty to be the navigation of a vehicle of transportation of a kind which might naturally require the dropping of the thing in question for the safe prosecution of the voyage, or to be negligence in management? The former averment would present a simple case, if the proposition of law involved be sound: the latter it might be difficult or impossible to prove.

But for the public wrong, if wrong it be, of making such a voyage, or of dropping such a bag, it may at least plausibly be contended that the public only can complain, on the ground that no man who was not hit has any substantial interest calling for the intervention of the law, unless he were put in some special peril.

[7] Inst. IV, 3, *de lege Aquilia;* 5, *de obligationibus quæ quasi ex delicto nascuntur; Dig.* IX, 3, *de his qui effuderint vel dejecerint.*

[8] Railroad Co. *v.* Lockwood, 17 Wallace's Reports, 357, 383.

On the other hand, it may be argued that every man is in special peril over whose head an air-ship is passing. He is beneath the sword of Damocles, and the sword is not even supported by the horse-hair.

In one of Mr. Wright's flights, in 1909, in Germany, it is reported that he directed the course of his ship over the head of the emperor. A very slight accident might have involved a fall that would have changed the history of Europe. The emperor may have invited or encouraged such a manœuvre by his presence on the field whence the flight took place; but the ordinary citizen, engaged at home in his usual concerns, may now find himself in a similar position of danger should an air-ship chance to come in his vicinity.

The preventive processes of law, such as an injunction, seem in such a case to offer an inadequate remedy: the common processes of law, such as an action for damages, are still less efficient, for no damages except those incident to fear or apprehension could be proved, and those are shadowy, subjective, and uncertain.

But be this as it may, the air-ship voyager would certainly find some advantage, and if having proper skill and experience is probably entitled to some advantage, from a government license. He is pursuing an occupation which is potentially useful to the public in time of peace and will be highly useful to the public in time of war. He merits, therefore, some kind of public protection.

The natural conclusion would seem to be that the government can permit this new use of the air, under such restrictions as are required in the public interest, without invading the rights of land-owners, except in case of actual and substantial damage done.

Should an air-ship descend or the drag-rope of a balloon be let down in my garden, breaking through my trees or spoiling my crops, I should certainly, at common law, as by the *lex Aquilia* or *Edictum de dejectis,* etc.,[9] have my action against any one in fault.[10] Of this it would seem that no license or franchise granted by the public which he might hold could deprive me. Should the proprietor of a fleet of air-ships plying in a regular course of trade,

[9] Dig. IX, 2, *ad legem Aquilian,* 27; 3.

[10] Guille *v.* Swan, 19 Johnson's New York Reports, 381.

send them in a line of direction which would carry them over my house, and so low as to put me in serious and reasonable apprehension of danger, I might be able to get preventive relief. Should the government establish a certain defined roadway through the air above my land, to which all air-ships should be confined, and should the number of those traversing it become so great that my house was in daily and hourly peril, or was constantly invaded by smoke and soot, or rendered uninhabitable by bad smells, an injunction might perhaps be granted. But in each of these cases the complaint would be of a particular and special damage to a particular landowner.

Assuming then that the air-ship must be the subject of governmental authorization and regulation, what form should they take and from what source should they come?

In our country, for an air-ship voyage wholly within any particular State, the State would be the source: for all others, the United States, acting under their power to regulate "commerce with foreign nations and among the several States." The air-ship may be as fully an instrument of such commerce as a ship sailing the sea.

Much the same kind of regulations would be necessary both with regard to interstate and foreign voyages. Provision must be made for ship's papers; to fix the number of persons to be carried on a ship according to its capacity; for examining into the qualifications of those in charge; for the security, so far as may be, of the customs revenue; for the inspection of machinery; perhaps for pilotage.

A serious and fundamental question must, under any such system of regulation, be met by the courts. It is thus: Will the governmental license or franchise, even within the jurisdiction where it is granted, protect the owner of an air-ship if, while being managed with all due skill and care, it accidentally, by some force which can not be resisted, falls and injures person or property below?

There are judicial decisions which hold that one who pens up running water in a reservoir is liable to any one injured, if the dam yields and lets the water out in a sudden flood, with whatever care it may have been planned and constructed. He is likened to one who keeps a caged tiger in his house. The cage may have been built with what seemed due care; but if in fact the tiger breaks out,

whoever was responsible for confining him in such a place is responsible for whatever injury to others follows from his escape.[11]

But a tiger is an enemy of the human race. It serves no useful end to make a household pet of him. The air-ship, promoting the public good, may well lay claim to a very different position. Yet the air-ship, like the reservoir, embodies a human attempt to control the natural operation of universal physical laws. If this be done not as a public enterprise, but for the profit of its owner, ought he not to be responsible at all events for what mischief it may do? And should he set up a franchise to navigate the air, in such a ship, could not, under our political system, a sufferer on the land from an accident occurring to it in the air, deny that this franchise could avail against the constitutional guaranty of the individual against deprivation of life, liberty, or property without due process of law?

The English law in regard to automobiles would seem to favor an opposite conclusion.

The owner of such a vehicle was using it in London with all due care and skill on a greasy and slippery road, when it skidded and ran on the sidewalk. A person with whom it there collided brought suit. The jury found that the vehicle, a motor omnibus, was liable on such a road to become uncontrollable, and did in fact become so, and that the defendant was negligent in sending it out for use there under such circumstances. On this verdict judgment was entered for the defendant, and, while it was reversed by the Divisional Court, the ruling was finally supported by the Court of Appeal (Lord Justice Buckley dissenting).[12]

If this be law, an English court could hardly impute negligence to an aviator who was navigating the air under a franchise so to do granted by the government, where the only negligence with which he could be charged lay in the bare use of the air as a means of support. Were he a foreigner, sailing under a foreign license, he would stand in a less favorable position, unless, by the aid of some form of international agreement or concerted legislation, his authority had received confirmation from the local sovereign.

[11] Rylands *v.* Fletcher, L. R. 3 H. of L. 330.

[12] Wing *v.* London General Omnibus Co., Law Journal for July 24, 1909, Vol. XLIV, 460.

But even if a private action would lie against him for any damage arising from the events of his voyage, Anglo-American law would throw serious impediments in the plaintiff's way.

It is, to say the least, doubtful if an air-ship invades the rights of private landowners by simply flying over their property at such a height as to cause them no substantial inconvenience.[13] If there be an actionable invasion, the common-law remedy is by a form of suit (trespass on the case) which can be brought wherever the defendant could be served with process.

But *prima facie,* certainly, when an air-ship descends to the earth, an actionable and direct wrong is committed against the owner of the land on which it comes to rest, unless his consent has been previously obtained. The remedy at common law was an action of trespass *quare clausum fregit.* It could be brought only in a court having jurisdiction over the land in question. The same rule generally obtains as to the modern form of action for such an invasion of another's rights. An aviator who lit upon a farm in Massachusetts could be sued only in Massachusetts, whether the proceeding were in the State or federal courts. Nor could his air-ship be seized on *in rem* process, issuing from either, under existing laws.

A statute enacted by a State authorizing a suit *in rem* in such case would justify the proceeding, if Congress had not acted in the matter. Congress might so act and, with regard to voyages from out of a State into a State, or *vice versa,* could give a remedy by attachment of the air-ship in the courts of the United States.

In the absence of some such statute, the remedy of the land-owner would often be illusory. The air-ship or balloon descends, comes in sudden contact with his house, or mutilates a shade tree on his lawn. It then regains the regions of the air by a new flight, or is hurriedly crated and carted away before he has an opportunity to procure a writ of attachment in an ordinary suit. The aviator is unknown to him, and, if known, would often be of no pecuniary responsibility. He may be a foreigner, against whom no action would lie in his own country. All these considerations call everywhere for remedial legislation.

[13] Pickering *v.* Rudd, 4 Campbell's Reports, 219; 1 Starkie's Reports, 56.

Among the first questions to be met is one of the comity of nations. Shall a government license issued in one State or country be of any avail in another over which an air-ship may pass or into which it may descend?

That it should seems demanded in the United States (in the absence of federal legislation) by the principle of free trade between the States.[14] From a broader point of view, it is required by the increasing solidarity of the world, proceeding from greater uniformity of political structure and a common standard of civilization, supported by so many international agreements and gatherings of an ecumenical character, and vivified by close and rapid commercial intercourse. Such a license might not and probably should not be accorded universal authority, but it certainly should, under a proper convention, be accepted as *prima facie* evidence that the voyage is a lawful one.

In securing such an effect for it nothing would be more helpful than the requirement by the government from which it emanates that its issue shall be conditioned on the filing of a proper indemnity bond for the benefit of whom it may concern. Such an obligation, with a sufficient surety, lodged in a public office, would afford an easy means of redress to foreigners as well as citizens of the country who might suffer damage by reason of occurrences incident to the voyage or voyages covered by the license. It would be of most service to the public were such a bond to hold for all voyages which the person licensed might take in the future in the ship which he was licensed to sail.

Another mode of attaining the same result would be to compel the owners of each air-ship to take out a blanket policy of accident insurance, covering all injuries occasioned by the use of the ship, and authorizing the parties injured to bring suit upon it in the name of the insured but for their own benefit.

[14] Such a policy would be in accord with the general trend of our State legislation with respect to interstate automobile trips. The license from one State is commonly recognized in another as sufficient for a certain number of hours or days. Air-ship voyages will always be short.

It should also be provided by statute or treaty that air-ships should carry the flag of their nation, and each its own number, corresponding to that in its official registry. The project of an international code of aviation (*Règlement sur le Régime Juridique des Aérostats*), reported by M. Fauchille to the Institute of International Law in 1902, looks in this direction.

Might not treaties and statutes be also desirable prescribing a mode of indicating where a landing was permitted or prohibited? If, for instance, a red flag were made the sign of prohibition, it might fairly be provided that to land in the face of such a warning should subject the aviator to an action for double damages, enforceable by his arrest.

There have already been instances of shooting at balloons in mere wantonness. Such assaults would no doubt be cognizable by the courts of the country from which the fire-arms were discharged. Should they result in death to an aëronaut, no reason is perceived why that event should not be deemed to have occurred in the country over which he was floating.

For like reasons, should bombs be thrown from an air-ship with the purpose of wrecking property on land, the offense of throwing might by possibility be justiciable in one jurisdiction and that of damaging property in another.

In the Fauchille project, it was proposed (Art. 15) to make a prosecution for such offenses lie only in the country to which the air-ship might belong. This would secure unity of procedure at the expense of justice.

Another point demanding official treatment is the character of a homicide or personal injury caused by an aëronaut in the course of some manœuvre intended to save his own life. That he could not intentionally take another's life for that purpose is established.[15] But may he not hazard taking it, though hoping to avoid such a consequence? If in taking such a voyage he is doing a lawful act, the law of self-preservation speaks loudly in his favor.[16]

[15] Regina *v.* Dudley, (L. R.) 14 Q. B. D. 273.
[16] See Morris *v.* Platt, 32 Conn. Reports, 75.

It is obvious that aviation (including in this term the use of the Zeppelin type of air-ship), if perfected, may be productive of great public benefits.

It helps to shorten the time and limit the expense of transit from one point to another. It offers a cheap and formidable engine of war both by sea and land. It serves to train men in presence of mind, in fortitude, courage, persistence.

It gratifies also the natural love for excitement and adventure. The North pole has been discovered. The center of Africa has become well known. What is left for ardent and ambitious spirits who would do something new and original, except to conquer the air?

They are fast conquering it.

Gasoline, a by-product of petroleum once thought valueless, and the electric spark, with their high power out of little weight, have made it possible, at least, for man to fly like a bird. But he can not descend as lightly. He must bear along with him an intricate and fragile apparatus which makes him a menace to the safety of whatever he passes over.

To harmonize the aëronaut's rights with those of other men and of foreign lands over which he may take his course, demands not only adequate local legislation but adequate international agreements. Professor Meili of Zürich, the author of *Das Luftschiff im internen Recht und Völkerrecht,* in a recent address before the *Internationale Vereinigung für vergleichende Rechtswissenschaft,* etc., of Berlin, has strongly advocated the convening, after due preparation and consultation, of an international conference for this purpose. It is certainly quite as much needed as that held in 1906 to regulate the international bearings of wireless telegraphy.

Such a body, to be of the greatest use, should devise more than one project of a treaty.

There are subjects involved on which all civilized nations could be expected to agree. There are also those on which they would be sure to differ. There are many regulations for times of peace which could be observed in all and consented to by all without serious difficulty. There are, on the contrary, few regulations for times of war

which would meet with universal favor. England would be apt to stand for one line of policy; France and Germany for another.

It is full time to make some attempt in this direction.

During the siege of Paris in 1870, a balloon went from there to Christiania, across the North sea, in fifteen hours. Count Zeppelin's dirigible air-ship can carry a full company of soldiers and formidable cannon. France has adopted the policy of collecting a duty of a hundred and twenty dollars on every balloon of average size coming down on her territory. The new project of a Swiss commercial code, published in 1903, declares that whoever wilfully endangers the prosecution of an air-ship voyage so as to put human life in peril shall be subject to imprisonment. Particular regulations of similar kinds will multiply fast, and each makes it more difficult to negotiate a common rule by treaty.

The holding of an official international congress to consider the law of the air-ship is rendered both more easy and more difficult by the unofficial international conferences of aëronauts of which several have already been held, and the next is to meet at Bordeaux in 1910. The organization constituted by these and known as the *Aëronautic Federation,* has shown that for such matters as the regulation of international aviation contests for prizes it is easy and practicable for those of different nations to take concerted action. Its composition, on the other hand, has been such as to make the promotion of the interests of aëronauts an object of more prominence than the protection of those of the public generally.

A public congress called to consider this particular subject alone can probably deal more intelligently with the question of the legitimate use of the air-ship in war, than one called, like the two Peace Conferences at the Hague, to consider many different subjects. It would also be less affected by sentimental considerations. The Hague Declaration of 1907, extended to the close of the next Peace Conference a prohibition of the discharge of projectiles and explosives from balloons or by other analogous methods. Though the Declaration was ratified by the United States in 1908, the other great powers stand aloof, and several of them voted against it when

adopted.[17] While it was generally supported by those supposed to be especially the friends of peace, it may well be doubted whether peace is promoted by making war less horrible. Peace is to be striven for when consistent with honor, but when war comes the deadlier it is, the shorter it will be.

There are two lines from Locksley Hall, often quoted by those who have forgotten the thought that leads up to them, in which Tennyson's clear spirit of divination foretells horrors of the air that would make for a universal brotherhood of nations. Our days seem on the verge of giving reality to what, when he published it in 1842, seemed a visionary and fantastic forecast. Let me close by giving the whole passage:

Men, my brothers, men the workers, ever reaping something new,
  That which they have done but earnest of the things that they shall do;
For I dipt into the future, far as human eye could see,
  Saw the vision of the world, and all the wonder that would be:
Saw the heavens fill with commerce, argosies of magic sails,
  Pilots of the purple twilight, dropping down with costly bales:
Heard the heavens fill with shouting, and there rained a ghastly dew
  From the nations airy navies, grappling in the central blue:
Far along the world-wide whisper of the south-wind rushing warm,
  With the standards of the peoples plunging thro' the thunder-storm:
Till the war drums throbbed no longer, and the battle-flags were furled
  In the Parliament of Man, the Federation of the World.

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[17] Scott, The Hague Peace Conferences, Vol. I, pp. 652, 653; Vol. II, p. 527, n.