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Rainmakers and Legislation

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COMMENTS

RAINMAKERS AND LEGISLATION

In recent years, there has been much speculation caused by the notoriety given to the activities of rainmakers who claim that weather can be controlled by dropping dry ice or silver iodide particles into the clouds to make rain or snow. There is no doubt that if such a feat is perfected it will have a far-reaching effect upon the destinies of agriculture in times of drought and could certainly be used, militarily, as a great tactical maneuver. There are scientists who claim that the rainmaking process has been so far perfected as to require national legislation, as evidenced by three bills introduced in the Senate of the 82nd Congress. [1] One of the pending bills before the three appointed subcommittees would establish a new government agency to take over all weather control activities. Other bills would place responsibility for weather control research in either the Department of Agriculture or the Department of the Interior.

In March 1951, before hearings conducted by Senate subcommittees with respect to these bills, the president of the Carnegie Institution and wartime director of the Office of Scientific Research and Development testified that it is now possible to make rain through artificial methods and openly advocated the establishment of a new government agency to direct all weather control activity. There is an indication that man for the first time is beginning to affect the climate in which he lives. Certainly, science is on the threshhold of discoveries of exceeding import.

The director of the Mount Washington Observatory of Harvard University, however, who directed the rainmaking operations for New York City in 1949, said before the same subcommittee hearings that it would be "far-fetched" to predict that any appreciable change in climate could be accomplished by such operations. The head of the Department of Meteorology of the Massachusetts Institute of Technology and past president of the American Meteorological Society joined in this opinion by stating that it would be premature to suppose that science is on the verge of being able to exercise widespread control over the weather. In view of this testimony, it is not likely that legislative action will be taken this session to control the weather; it is likely, however, that the government will accept full responsibility for damages arising from research and experiments in weather control. [2]

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1. S. 5, 82 Cong., 1st Sess. (1951); S. 222, 82d Cong., 1st Sess. (1951); S. 798, 82 Cong., 1st Sess. (1951).
2. Since early 1948, research laboratories have been stymied in their research into rainmaking processes, even though requested by the Government, because of the Government's refusal to "save harmless" these laboratories from damages resulting from the operations: Hearings before Committee on Public Lands on H.R. 4582, 80th Cong., 1st Sess. (1948); hearings before Committee on Public Lands on H.R. 4623, 81st Cong., 1st Sess. (1949). One of the salient features of S. 5 and S. 222, supra note 1, allows the Government, at its discretion, to "save harmless" various laboratories in their research in this field.

Along with any new scientific and technical discoveries which basically affect man's living habits, there are presented legal problems which almost invariably reach the courts before legislation has been passed which would aid the courts in determining the solution. One of the first cases arose in an action against the City of New York whereby a resort owner asked for an injunction restraining the city from undertaking, conducting or engaging in experiments to induce rain artificially. [3] The plaintiffs claimed that the experiments would cause the streams to swell and produce considerable damage to riparian owners along such streams and also that threatened rainfall would be injurious to their resort business. The court decided for the city, holding that the plaintiffs had no vested property rights in the clouds or the moisture therein. The Court also balanced the conflicting interests between the remote possibility of inconvenience to the plaintiffs' resort and supplying ten million New Yorkers with an adequate supply of pure and wholesome water. The court emphasized the speculative nature of the plaintiffs' claims, in deciding against them.

How should the courts decide an issue when it is actually determined that the damages are not speculative, and are actually caused by the rainmaking process. Should they decide for the landowner who has been deprived of the rain or whose land was flooded as a result of another's rainmaking activity, or should the court decide in favor of the one who is increasing the productivity of his soil and bettering himself economically by the use of rainmaking processes to the detriment of his neighbor? There are several arguments for both sides.

Reasons advanced for absolving a landowner from liabilities with respect to damages caused by cloud seeding operations.

Of course, the ancient maxim "Cujus est solum, ejus est usque ad coelum et ad inferos (whose is the land, his is also that which is above and below it)" [4] has been greatly modified by the progress shown in aviation in the past twenty years. But increased air transportation has not completely abrogated the doctrine; it has merely compelled the courts to delve into the ancient cases and determine just what those courts meant when the doctrine was quoted. Cases today are unanimous in stating that the landowner has paramount title [5] and the dominant right [6] to so much of the airspace above the ground as he can occupy or make use of in connection with the enjoyment of his property. [7] If the landowner is to have full enjoyment of the land, he must have exclusive control of the immediate reaches of the enveloping atmosphere. The fact that he does not occupy it in a physical sense - by the erection of buildings and the like - is not material. [8] Applying this doctrine and its present interpretation, a landowner should be permitted to extract moisture from the clouds (i.e. saturated airspace) as they pass over his lands. This use of the airspace has a direct influence and effect upon the landowner's receiving the full and complete benefits from his lands. This superjacent

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3. Slutsky v. City of New York, 197 N.Y. Misc. 730, 97 N.Y.S. 2d 238 (1950).
4. Antonik v. Chamberlain, 81 Ohio App. 465, 78 N.E. 2d 752, 757 (1947).
5. Hinman v. Pacific Air Transport, 84 F. 2d 755 (9th Cir. 1936), cert. denied, 300 U.S. 654 (1937).
6. Swetland v. Curtiss Airports Corporation, 55 F. 2d 201 (6th Cir. 1932).
7. Cory v. Physical Culture Hotel, Inc., 14 F. Supp. 977 (W.D.N.Y. 1936), aff'd, 88 F. 2d 411 (2d Cir. 1937); Guith v. Consumers Power Co., 36 F. Supp. 21 (E.D. Mich. 1940).
8. United States v. Causby, 328 U.S. 256 (1946).

airspace is necessary to enable the landowner to fully enjoy his lands. Even though there has been actual injury to other landowners, if there has been no violation of a legal duty owed to those landowners there can be no recovery of damages by them. [9] Their loss is an incident and result of residing in a civilized state where great scientific developments are made each day.

The federal government, watching the increased activity in the airspace in our everyday economy, by the Air Commerce Act of 1926, amended by the Civil Aeronautics Act of 1938, vested in the United States government the complete and exclusive national sovereignty of all air space above the United States, [10] subject to regulations to be promulgated by the Civil Aeronautics Authority. [11] This Authority has set minimum safe altitudes below which an airplane cannot fly. [12] The air space below such heights has not been placed by Congress within the public domain [13] and it is the conviction of the Civil Aeronautics Authority that title to any airspace below that altitude is necessarily in the landowner below to enable him to fully enjoy his land. Therefore, if the clouds from which the moisture is extracted are below the minimum altitude as provided by the Civil Aeronautics Authority, then the landowner is entitled to use that airspace as an incident to his ownership. If, however, the clouds from which the moisture is extracted are above the minimum altitude as prescribed by the Civil Aeronautics Authority, the space is a "public highway" [14] and its use is authorized to the public generally without regard to the individual. A refusal by the courts to allow the subjacent landowner to extract moisture from these clouds as they pass over his lands results in a denial to an individual of use of airspace held in trust by the sovereign for public use. Also it results in the economic preference of adjoining landowners. It must be remembered that property set aside for public use cannot be limited to particular individuals, [15] nor may the benefits be confined to specified, priviliged persons. [16] Another argument which might be advanced in favor of one who extracts moisture from the clouds is one based upon the ancient doctrine of ferae naturae. As was said by Blackstone long ago:

> "But, after all, there are some few things, which, notwithstanding the general introduction and continuance of property, must still unavoidably remain in common; being such wherein nothing but an usufructuary property is capable of being had; and, therefore, they still belong to the first occupant, during the time he holds possession of them, and no longer. Such (among others) are the elements of light, air and water; which a man may occupy by means of his windows, his gardens, his mills, and other conveniences: such, also, are the generality of those animals which are said to be ferae naturae, or of a wild and untameable disposition; which any may seize upon and keep for his own use or pleasure.

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9. United States v. Alexander, 148 U.S. 186 (1893).
10. 44 Stat. 568 (1926), 49 U.S.C. sec. 176(a) (1946).
11. 44 Stat. 568 (1926), as amended, 49 U.S.C. sec. 180 (1946).
12. 14 Code Fed. Regs. secs. 60.350-3505 (minimum safe altitudes), secs. 61.7400-7401 (visual contact flights, day and night) (Cum. Supp. 1943).
13. United States v. Causby, supra note 8.
14. Ibid.
15. State Public Utilities Comm'n. v. Bethany Mut. Tel. Ass'n., 270 Ill. 183, 110 N.E. 334 (1915); Cox v. Revelle, 125 Md. 579, 94 Atl. 203 (1915).
16. 50 C.J. 866, n. 96(a).

> All these things, so long as they remain in possession, every man has a right to enjoy without disturbance; but, if once they escape from his custody, or he voluntarily abandons the use of them, they return to the common stock, and any man else has an equal right to seize and enjoy them afterwards." [17]

A person who goes out and captures a portion of the clouds and reduces them to his exclusive possession in the form of rain is not asserting ownership in the whole cloud, but only that portion which comes down in the form of rain. He may enjoy this rain so long as it remains in his possession. It is not a distortion of logic, nor does it require any stretch of the imagination, to apply this doctrine to rain acquired by artificial means. The doctrine was successfully applied in the early development of the law concerning gases and oils in the midwestern and southwestern states. It was there held that a man had no property in the gases and oils which were beneath his lands until he reduced them to possession. [18] By reducing the rainfall to possession a landowner is allowed to acquire a defeasible property interest in that water and can use it as he sees fit. Once the rainfall hits the ground it becomes surface waters and subject to the laws pertaining to same.

With regards to surface and percolating waters a landowner may capture such waters in a well or ditch and it becomes his property, with all the incidents thereof so long as he can hold it. Why may not the same be done with moisture passing through the airspace? Surface waters, so long as they remain on the lands of a person and are used by him for proper purposes, are not waste waters, and do not in any way become such until they have escaped and reached the land of another, and until then the latter cannot make a valid appropriation of them. [19] Nor can the lower landowner acquire a right to the surface water by prescription. If the lower landowner could acquire such a right then the upper owner would have to collect the waters, whether he needed them or not, just to prevent the lower owner from acquiring an easement to the waters. [20]

Even the doctrine of reasonable user as applied to percolating waters does not restrict the use of such waters so long as this use is connected with the beneficial ownership or enjoyment of the land whence they are taken. This doctrine only restricts the distribution or sale of percolating waters not connected with any beneficial ownership or enjoyment of the land. [21]

For these reasons, it can be concluded that a person should be allowed to extract moisture from the airspace which is above his land. Once this moisture, in the form of rain, falls upon his lands he can reduce it to his possession and he acquires a property right in it. He may use it in any way as long as it's use is connected with the enjoyment and betterment of his land.

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17. 2 Bl. Comm. *14.
18. Wright v. Carter Oil Co., 97 Okla. 46,223 Pac. 835 (1923); Higgins Oil & Fuel Co. v. Guaranty Oil Co., 145 La. 233, 82 So. 206 (1919); Barnard v. Monongahela Natural Gas Co., 216 Pa. 362, 65 Atl. 801 (1907).
19. Burkart v. Meiberg, 37 Colo. 187, 86 Pac. 98 (1906).
20. 56 Am. Jur., Waters, sec. 66.
21. Snake Creek Mining & Tunnel Co. v. Midway Irrigation Co., 260 U.S. 596 (1923); United States v. Alexander, 148 U.S. 186 (1893); Schenk v. City of Ann Arbor, 196 Mich. 75, 163 N.W. 109 (1917); Erickson v. Crookston Waterworks, Power & Light Co., 100 Minn. 481, 111 N.W. 391 (1907).

Reasons advanced for charging a landowner damages for injuries inflicted on others as a result of cloud seeding operations.

There is no doubt that the courts have the right and authority to extend the doctrine of riparianism to grant relief to the injured landowner. Although there may be no precedent existing upon which the injured landowner may have a claim for damages, the courts are not bound by only those cases for which a precedent can be found, [22] and as a matter of public policy have the power to prevent an interference with the natural flow of clouds which works to the substantial injury of others.

The outstanding majority of the states in the United States recognize the common law doctrine of riparianism [23] and hold that every riparian owner is entitled to have a stream continue to flow through or along his lands in an accustomed and natural channel, and is further entitled to its natural volume without any obstruction of the channel or detention of the waters by other owners. [24] In the case of dams built by upper riparian owners, no matter how beneficial these structures are to society, the law has zealously guarded the right of the lower landowner to the undiminished flow of the water course adjacent to his land. Where the obstruction occurs, it is recognized as an injury to a right, which is compensable at law. [25] Since the courts are so concerned and so protect a lower riparian owner when he is denied water in a natural stream, should they not also be concerned and protect a landowner when he is denied water caused by an interference with the natural flow of clouds? It has also been held that even when there is legislative authority to build a dam, the grantee is not entitled to set water back across another's land. [26] The building of the dam was held to be the proximate cause of the direct injury to the owner. Why should the law allow one landowner to promiscuously seed the clouds and start a chain reaction which might flood the lands of innocent owners nearby, and at the same time not allow a recovery to the innocent party so injured?

When a landowner becomes accustomed to and actually relies upon a certain amount of water each year from a stream, the courts will protect him and allow him to extract that amount of water each succeeding year from the stream. If an upper owner attempts to deprive him of that normal amount or any portion of it the courts will either stop the deprivation or allow recovery for the damages resulting. Similarly, in the case where there is no stream, but the landowner becomes accustomed to and actually relies upon an average rainfall each year, the courts should also protect him when the normal rainfall is taken away from him by artificial means. Although there might be no grounds upon which an easement may be declared in something as nebulous as the clouds, still without declaring an easement, the courts can protect the injured landowner as a beneficial user of the normal rainfall. Where the beneficial use exists, any interference with this use is a violation

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22. Lumley v. Guy, 2 E. & B. 216, 118 Eng. Rep. 749 (1853); Fletcher v. Rylands, L.R. 3 H.L. 330 (1868).
23. Some arid and semi-arid states in the west, by statute, have recognized the prior appropriation doctrine in preference to the doctrine of riparianism. See, e.g., 65 Utah 142, 235 Pac. 580 (1925).
24. United States v. Willow River Power Co., 324 U.S. 499 (1945).
25. Saddler v. Lee, 66 Ga. 45, 42 Am. Rep. 62 (1880); Medano Ditch Co. v. Adams, 29 Colo. 317, 68 Pac. 431 (1902).
26. Lee v. Pembroke Iron Co., 57 Me. 481, 2 Am. Rep. 59 (1869).

of the landowner's personal right, as a member of society, to use that which is entrusted to the government for the general public. [27]

In United States v. Gerlach Live Stock Co., [28] certain individuals brought suit against the government for just compensation for deprivation of riparian rights along the San Joaquin River in California caused by construction of the Friant Dam. The plaintiffs were owners of uncontrolled grass lands which were a part of a large riparian area and which benefited from the natural seasonal overflow of the stream. Each year, with predictable regularity, the stream would swell and submerge and saturate these lands. They were moistened and enriched by the inundations so that forage and pasturage thrived as otherwise they could not. When the dam was built the stream no longer overflowed and as a result, individuals in the lowlands received none of the overflow to which they were accustomed. The Supreme Court granted compensation to the landowners saying:

> "We recognize that the right to inundation asserted here is unique in the history of riparian claims. Where the thirst of the land is supplied by rainfall, floods are detriments if not disasters, and to abate overflows could rarely if ever cause damage. But, as we have pointed out, uncommon local conditions have given rise to the singular rule of California. The same scarcity which makes it advantageous to take these waters gives them value in the extraordinary circumstances in which the California courts have recognized a private right to have no interception of their flow except upon compensation." [29]

Perhaps this decision could be a leading one for the courts in determining liability of a person who appropriates moisture from the air to the detriment of others. Here, the seasonal overflow, although occurring at no set time and travelling in no defined channel, was relied upon as an annual certainty and those who were deprived of it were allowed compensation. The courts should recognize that the same conditions prevail with regard to annual rainfall. The clouds pass over at no set time and travel in no defined channel; yet, annual rains are relied upon as a certainty, under normal conditions, and those deprived of this water should be allowed compensation for their losses.

Another argument which can be advanced to hold one liable who extracts moisture from the clouds and thereby injures his neighbor is based on the common law maxim that "an owner may not pursue his own interests at the expense of an adjoining landowner's livelihood." When one landowner so uses his land as to diminish the use to which his neighbors can put their adjoining lands, the value of their lands is proportionately diminished, and the right to derive profits therefrom has been impaired. [30] Liabilities must be imposed upon the use and enjoyment of one piece of land for the benefit of the owner of another. [31] Where the injury is to the profitable use of the land, irrespective of whether the injuring landowner is exercising a lawful act in the enjoyment of his property, the injured party may be compensated for his losses. [32] In the artificial rain making situation, even though the

27. Kansas v. Colorado, 206 U.S. 46 (1907).
28. 339 U.S. 725 (1950).
29. Id. at 754, 755.
30. Forster v. Scott, 136 N.Y. 577, 32 N.E. 976 (1893).
31. Ladow v. Oklahoma Gas & Electric Co., 28 Okla. 15, 119 Pac. 250 (1911).
32. Baltimore & Potomac R.R. v. Fifth Baptist Church, 108 U.S. 317 (1883); Chesapeake & Ohio Ry. v. Wellington, 231 Ky. 745, 22 S.W. 2d 131 (1929); Green v. General Petroleum Corp., 205 Cal. 328, 270 Pac. 952 (1928).

extraction may be lawful, it can not be done without compensating other landowners who are injured by the operation.

Conclusion

Clearly, there are valid arguments for each side in litigation which might arise as a result of injuries received through cloud seeding operation. There is no doubt but that legislation will be passed eventually which will, in order to avoid interstate arguments, give the Federal Government complete control in all weather control activities, but until science develops the rainmaking processes to a greater degree of certainty such legislation would be premature. Under the Civil Aeronautics Act, the Civil Aeronautics Board now controls crop-dusting activities by requiring each person before engaging in such activity to obtain a certificate of waiver as required by the Air Traffic Rules.[33] This certificate is granted only when weather conditions are ideal for crop-dusting and the danger of injury to adjacent fields is at a minimum. Under a system of control similar to that exercised in crop-dusting cases, the Federal Government, through the Civil Aeronautics Authority, could today regulate the dropping of particles of dry ice and silver iodide from airplanes. If that Authority felt that the injury which would result to other landowners in the area would exceed the benefit derived by the individual, then it could refuse to clear the plane and could deny use of the airspace for that particular purpose.

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33. 14 Code Fed. Regs. sec. 60.1 (Cum. Supp. 1943), renumbered and reprinted, as amended, 14 Fed. Reg. 4286 (1949).