

Chapter 1

Property Boundaries

Where does one person's property end, and another's begin? For some things, this is an easy question. A pen and a desk, for example, have distinct boundaries, defined by the surfaces of the objects. So if Alice owns a pen and places the pen on Bob's desk, it is clear what belongs to Alice and what belongs to Bob. Or is it so clear? What if Alice draws on Bob's desk, depositing a trail of ink from the pen?

Defining the boundaries of things is fundamental to property law, and unclear boundaries are classic subjects of property disputes. Land is the most common example. The lateral boundaries of land, of course, but what about vertical? How far into the sky do a landowner's rights reach? And for intangible property, these questions are even more difficult. At least for tangible things, humans can perceive their size and shape; how does one do the same for the intangible?

1.1 Land

Walters v. Tucker

281 S.W.2d 843 (Sup. Ct. Mo. 1955)

This is an action to quiet title to certain real estate situate in the City of Webster Groves, St. Louis County, Missouri. Plaintiff and defendants are the owners of adjoining residential properties fronting northward on Oak Street. Plaintiff's property, known as 450 Oak Street, lies to the west of defendants' property, known as 446 Oak Street. The controversy arises over their division line. Plaintiff contends that her lot is 50 feet in width, east and west. Defendants contend that plaintiff's lot is only approximately 42

feet in width, east and west. The trial court, sitting without a jury, found the issues in favor of defendants and rendered judgment accordingly, from which plaintiff has appealed.

The common source of title is Fred F. Wolf and Rose E. Wolf, husband and wife, who in 1922 acquired the whole of Lot 13 of West Helfenstein Park, as shown by plat thereof recorded in St. Louis County. In 1924, Mr. and Mrs. Wolf conveyed to Charles Arthur Forse and wife the following described portion of said Lot 13:

The West 50 feet of Lot 13 of West Helfenstein Park, a Sub-division in United States Survey 1953, Twp. 45, Range 8 East, St. Louis County, Missouri

Plaintiff, through mesne conveyances carrying a description like that above, is the last grantee of and successor in title to the aforesaid portion of Lot 13. Defendants, through mesne conveyances, are the last grantees of and successors in title to the remaining portion of Lot 13.

At the time of the above conveyance in 1924, there was and is now situate on the tract described therein a one-story frame dwelling house (450 Oak Street), which was then and continuously since has been occupied as a dwelling by the successive owners of said tract, or their tenants. In 1925, Mr. and Mrs. Wolf built a 1 1/2-story stucco dwelling house on the portion of Lot 13 retained by them. This house (446 Oak Street) continuously since has been occupied as a dwelling by the successive owners of said portion of Lot 13, or their tenants.

Despite the apparent clarity of the description in plaintiff's deed, extrinsic evidence was heard for the purpose of enabling the trial court to interpret the true meaning of the description set forth therein. At the close of all the evidence the trial court found that the description did not clearly reveal whether the property conveyed "was to be fifty feet along the front line facing Oak Street or fifty feet measured Eastwardly at right angles from the West line of the property . . . "; that the "difference in method of ascertaining fifty feet would result in a difference to the parties of a strip the length of the lot and approximately eight feet in width"; that an ambiguity existed which justified the hearing of extrinsic evidence; and that the "West fifty feet should be measured on the front or street line facing Oak Street." The judgment rendered in conformity with the above finding had the effect of fixing the east-west width of plaintiff's tract at about 42 feet.



Plaintiff contends that the description in the deed is clear, definite and unambiguous, both on its face and when applied to the land; that the trial court erred in hearing and considering extrinsic evidence; and that its finding and judgment changes the clearly expressed meaning of the description and describes and substitutes a different tract from that acquired by her under her deed. Defendants do not contend that the description, on its face, is ambiguous, but do contend that when applied to the land it is subject to “dual interpretation”; that under the evidence the trial court did not err in finding it contained a latent ambiguity and that parol evidence was admissible to ascertain and determine its true meaning; and that the finding and judgment of the trial court properly construes and adjudges the true meaning of the description set forth in said deed.

[The plaintiff and defendants introduced dueling survey plats. The one included here is the plaintiff’s. North is at the bottom. Note in particular the locations of the two houses and of the driveway. It may help to mark on the plat where the defendant’s proposed line would fall.]

It is seen that Lot 13 extends generally north and south. It is bounded on the north by Oak Street (except that a small triangular lot from another subdivision cuts off its frontage thereon at the northeast corner). On the south it is bounded by the Missouri Pacific Railroad right of way. Both Oak Street and the railroad right of way extend in a general northeast-southwest direction, but at differing angles. . . .

Both plats show a concrete driveway 8 feet in width extending from Oak Street to plaintiff’s garage in the rear of her home, which, the testimony shows, was built by one of plaintiff’s predecessors in title. The east line of plaintiff’s tract, as measured by the Joyce (plaintiff’s) survey, lies 6 or 7 feet east of the eastern edge of this driveway. Admittedly, the driveway is upon and an appurtenance of plaintiff’s property. On the Elbring (defendants’) plat, the east line of plaintiff’s lot, as measured by Elbring, is shown to coincide with the east side of the driveway at Oak Street and to encroach upon it 1.25 feet for a distance of 30 or more feet as it extends between the houses. Thus, the area in dispute is essentially the area between the east edge of the driveway and the line fixed by the Joyce survey as the eastern line of plaintiff’s tract. . . .

The description under which plaintiff claims title, to wit: “The West 50 feet of Lot 13 . . .”, is on its face clear and free of ambiguity. It purports to convey a strip of land 50 feet in width off the west side of Lot 13. So clear

is the meaning of the above language that defendants do not challenge it and it has been difficult to find any case wherein the meaning of a similar description has been questioned.

The law is clear that when there is no inconsistency on the face of a deed and, on application of the description to the ground, no inconsistency appears, parol evidence is not admissible to show that the parties intended to convey either more or less or different ground from that described. But where there are conflicting calls in a deed, or the description may be made to apply to two or more parcels, and there is nothing in the deed to show which is meant, then parol evidence is admissible to show the true meaning of the words used.

No ambiguity or confusion arises when the description here in question is applied to Lot 13. The description, when applied to the ground, fits the land claimed by plaintiff and cannot be made to apply to any other tract. When the deed was made, Lot 13 was vacant land except for the frame dwelling at 450 Oak Street. The stucco house (446 Oak Street) was not built until the following year. Under no conceivable theory can the fact that defendants' predecessors in title (Mr. and Mrs. Wolf) thereafter built the stucco house within a few feet of the east line of the property described in the deed be construed as competent evidence of any ambiguity in the description. . . .

Whether the above testimony and other testimony in the record constitute evidence of a mistake in the deed we do not here determine. Defendants have not sought reformation, and yet that is what the decree herein rendered undertakes to do. It seems apparent that the trial court considered the testimony and came to the conclusion that the parties to the deed did not intend a conveyance of the "West 50 feet of Lot 13", but rather a tract fronting 50 feet on Oak Street. And, the decree, on the theory of interpreting an ambiguity, undertakes to change (reform) the description so as to describe a lot approximately 42 feet in width instead of a lot 50 feet in width, as originally described. That, we are convinced, the courts cannot do.

Notes and Questions

- 1.1. Why does the court apply such a strict integration rule?

1.2. The boundary line as enforced by the court comes within inches of the defendants' house. This does not seem like an ideal state of affairs. (Then again, the defendant's theory would have drawn the boundary line through the plaintiffs' driveway.) Are there any doctrines that can clean up the messes that result when (by accident or otherwise) strict interpretation of deeds produces results at odds with natural features, structures, or uses of land?

1.3. The deed here used three different techniques to describe the land. Start at the end. "United States Survey 1953, Twp. 45, Range 8 East, St. Louis County, Missouri" is a reference to a government survey. Townships are standard 36-square-mile tracts established by federal government survey; "Twp. 45, Range 8 East" identifies a specific township in Missouri. Next, "of Lot 13 of West Helfenstein Park" is a reference to the *subdivision plat* filed by the developer who laid out the neighborhood; the plat is a survey map filed in the county recording office that shows the boundaries of individual parcels. Finally, "The West 50 feet" is a (crude attempt at) a *metes and bounds* description of the property in terms of its boundaries. Metes and bounds descriptions may refer to geospatial coordinates (e.g. latitude and longitude as measured by GPS), to natural landmarks ("Millers' Creek"), artificial markers ("the survey stake labelled G34"), and distances and directions ("300 feet along a course at 45°"). How precise are these various means of description? Which of them strike you as most prone to error?

1.4. Note that the boundary lines as shown on the survey map are at an angle to the north-south axis. Does this affect how the court should interpret the deed?

1.2 Airspace

Hinman v. Pacific Air Transport

84 F.2d 755 (9th Cir. 1936)

HANEY, Circuit Judge.

Appellants allege . . . that they are the owners and in possession of 72 1/2 acres of real property in the city of Burbank, Los Angeles county, Cal., "together with a stratum of air-space superjacent to and overlying said tract . . . and extending upwards . . . to such an altitude as plaintiffs . . . may reasonably expect now or hereafter to utilize, use or occupy said airspace. Without limiting said altitude or defining the upward extent of said stratum of airspace or of plaintiff's ownership, utilization and possession thereof, plaintiffs allege that they . . . may reasonably expect now and hereafter to

utilize, use and occupy said airspace and each and every portion thereof to an altitude of not less than 150 feet above the surface of the land”

It is then alleged that defendants are engaged in the business of operating a commercial air line, and that at all times “after the month of May, 1929, defendants daily, repeatedly and upon numerous occasions have disturbed, invaded and trespassed upon the ownership and possession of plaintiffs’ tract”; that at said times defendants have operated aircraft in, across, and through said airspace at altitudes less than 100 feet above the surface; that plaintiffs notified defendants to desist from trespassing on said airspace; and that defendants have disregarded said notice, unlawfully and against the will of plaintiffs, and continue and threaten to continue such trespasses The prayer asks an injunction restraining the operation of the aircraft through the airspace over plaintiffs’ property and for [damages].

Appellees contend that it is settled law in California that the owner of land has no property rights in superjacent airspace, either by code enactments or by judicial decrees and that the *ad coelum* doctrine does not apply in California. We have examined the statutes of California, . . . but we find nothing therein to negative the *ad coelum* formula If we could accept and literally construe the *ad coelum* doctrine, it would simplify the solution of this case; however, we reject that doctrine. We think it is not the law, and that it never was the law.

This formula “from the center of the earth to the sky” was invented at some remote time in the past when the use of space above land actual or conceivable was confined to narrow limits, and simply meant that the owner of the land could use the overlying space to such an extent as he was able, and that no one could ever interfere with that use.

This formula was never taken literally, but was a figurative phrase to express the full and complete ownership of land and the right to whatever superjacent airspace was necessary or convenient to the enjoyment of the land.

In applying a rule of law, or construing a statute or constitutional provision, we cannot shut our eyes to common knowledge, the progress of civilization, or the experience of mankind. A literal construction of this formula will bring about an absurdity. The sky has no definite location. It is that which presents itself to the eye when looking upward; as we ap-

proach it, it recedes. There can be no ownership of infinity, nor can equity prevent a supposed violation of an abstract conception.

The appellants' case, then, rests upon the assumption that as owners of the soil they have an absolute and present title to all the space above the earth's surface, owned by them, to such a height as is, or may become, useful to the enjoyment of their land. This height, the appellants assert in the bill, is of indefinite distance, but not less than 150 feet.

If the appellants are correct in this premise, it would seem that they would have such a title to the airspace claimed, as an incident to their ownership of the land, that they could protect such a title as if it were an ordinary interest in real property. Let us then examine the appellants' premise. They do not seek to maintain that the ownership of the land actually extends by absolute and exclusive title upward to the sky and downward to the center of the earth. They recognize that the space claimed must have some use, either present or contemplated, and connected with the enjoyment of the land itself.

Title to the airspace unconnected with the use of land is inconceivable. Such a right has never been asserted. It is a thing not known to the law.

Since, therefore, appellants must confine their claim to 150 feet of the airspace above the land, to the use of the space as related to the enjoyment of their land, to what extent, then, is this use necessary to perfect their title to the airspace? Must the use be actual, as when the owner claims the space above the earth occupied by a building constructed thereon; or does it suffice if appellants establish merely that they may reasonably expect to use the airspace now or at some indefinite future time?

This, then, is appellants' premise, and upon this proposition they rest their case. Such an inquiry was never pursued in the history of jurisprudence until the occasion is furnished by the common use of vehicles of the air.

We believe, and hold, that appellants' premise is unsound. The question presented is applied to a new status and little aid can be found in actual precedent. The solution is found in the application of elementary legal principles. The first and foremost of these principles is that the very essence and origin of the legal right of property is dominion over it. Property must have been reclaimed from the general mass of the earth, and it must be capable by its nature of exclusive possession. Without possession, no right in it can be maintained.

The air, like the sea, is by its nature incapable of private ownership, except in so far as one may actually use it. This principle was announced long ago by Justinian. It is in fact the basis upon which practically all of our so-called water codes are based.

We own so much of the space above the ground as we can occupy or make use of, in connection with the enjoyment of our land. This right is not fixed. It varies with our varying needs and is coextensive with them. The owner of land owns as much of the space above him as he uses, but only so long as he uses it. All that lies beyond belongs to the world. . . . Any use of such air or space by others which is injurious to his land, or which constitutes an actual interference with his possession or his beneficial use thereof, would be a trespass for which he would have remedy. But any claim of the landowner beyond this cannot find a precedent in law, nor support in reason.

. . . We cannot shut our eyes to the practical result of legal recognition of the asserted claims of appellants herein, for it leads to a legal implication to the effect that any use of airspace above the surface owner of land, without his consent would be a trespass either by the operator of an airplane or a radio operator. We will not foist any such chimerical concept of property rights upon the jurisprudence of this country

Appellants are not entitled to injunctive relief upon the bill filed here, because no facts are alleged with respect to circumstances of appellants' use of the premises which will enable this court to infer that any actual or substantial damage will accrue from the acts of the appellees complained of.

The case differs from the usual case of enjoining a trespass. Ordinarily, if a trespass is committed upon land, the plaintiff is entitled to at least nominal damages without proving or alleging any actual damage. In the instant case, traversing the airspace above appellants' land is not, of itself, a trespass at all, but it is a lawful act unless it is done under circumstances which will cause injury to appellants' possession.

Appellants do not, therefore, in their bill state a case of trespass, unless they allege a case of actual and substantial damage. The bill fails to do this. It merely draws a naked conclusion as to damages without facts or circumstances to support it. It follows that the complaint does not state a case for injunctive relief

Notes and Questions

1.5. Did the court in *Hinman* “find” the law of property as it applies to the airspace above land? Did it “change” the law in this regard? Or did it, as Felix Cohen has argued, “create and distribute a new source of economic wealth or power”? Felix Cohen, *Transcendental Nonsense and the Functional Approach*, 35 COLUM. L. REV. 809 (1935).

1.6. Does the court say that *Hinman* will never be able to obtain the relief sought? Are there any circumstances in which an injunction to restrict overflights to an altitude of over 150 feet (or any altitude) could be awarded under the court’s analysis?

1.7. The court justified its ruling in *Hinman*, at least in part, by reference to the “practical result” that would follow a finding in the landowner’s favor. What would that “practical result” be, and why did the court feel the need to avoid it? Is avoiding such undesirable “practical results” an acceptable basis for making a determination as to whether something is a person’s “property”?

1.8. **Drones.** The increasing availability of personal aerial robots (“drones”) is threatening to bring *Hinman* back into the spotlight. In November of 2014, a hobbyist was flying a custom-built “hexacopter” over his parents’ farm in California, when a neighbor’s son shot it out of the sky with a shotgun. The neighbor claimed the drone had been flying over his land, though the drone owner disputed this. In any event, the drone owner demanded compensation for damage to the drone, and the neighbor refused. They ended up in small claims court where the neighbor was held liable for \$850 in damages and court costs, on grounds that he “acted unreasonably in having his son shoot the drone down regardless of whether it was over his property or not.” See Jason Koebler, *The Sky’s Not Your Lawn: Man Wins Lawsuit After Neighbor Shotgunned His Drone*, VICE: MOTHERBOARD (June 28, 2015), [link](#).

Imagine that instead of (or in addition to) having his son use the drone for target practice, the farmer had called the police to make a complaint of criminal trespass, or sued the drone owner for trespass. What result? Would it matter how high the drone was flying? Would it matter whether the drone was equipped with a camera? (Recall that the right to exclude is not the only right of owners; trespass may not be our farmer’s only recourse. The doctrine of nuisance is another option.)

1.9. Would the “practical result” of a finding for the landowner in *Hinman* necessarily be the same as the “practical result” of a finding in favor of a landowner suing the operator of a drone in the airspace over her land? Again, would it matter how high the drone was flying, or whether it was equipped with a camera?

1.3 Radio Spectrum

Tribune Co. v. Oak Leaves Broadcasting Station

68 Cong. Rec. 216 (Cook Cty. Cir. Ct. Ill. Nov. 17, 1926)

Decision of Judge Wilson on Defendants' Motion to Dissolve Temporary Injunction

[Facts]

[The plaintiff is the publisher of the Chicago Daily Tribune, and since March 29, 1924 has operated a Chicago-area radio station with call sign WGN ("World's Greatest Newspaper"). The station uses a frequency of 990 kilocycles per second, what today we would call 990 kHz or 990 AM. According to the complaint, the radio station has over 500,000 listeners, and is "of a high-class character" that "has built up a good will with the public, which is of great value to the complainant."

The defendants run Guyon's Paradise Ball Room, a Chicago dance hall, and operate a radio station WGES out of the dance hall.* On September 7, 1926, changed their broadcast frequency to 950 kHz. According to the plaintiff, that change "has interfered with and destroyed complainant's broadcasting to the public in the city of Chicago." The defendants responded that no such interference was occurring, and to the extent that it was, "it is because said complainant's broadcasting station is improperly constructed and operated."

As a general matter, interference occurs when two radio stations near each other broadcast on similar frequencies. The degree of closeness necessary to cause interference was disputed between the parties, with the plaintiff demanding at least 50 kHz of separation but the defendants saying that 40 kHz was enough. The 1,200 kHz frequency was available to the defendants, but they found it "not desirable for the purpose of broadcasting and that its use would render WGES of little or no value as a broadcasting station."

The plaintiff sought an injunction requiring defendants to change their broadcasting frequency. The defendants contended in their answer that "they have invested large sums of money in and about their plant and will

*External sources suggest that the dance hall was attached to a hotel, and the purpose of the radio station was so that guests could continue to listen to the music when they returned to their rooms. —Eds.

suffer damage” from an injunction. But according to the plaintiffs, “the defendants have never enjoyed any considerable degree of the good will of the public, nor was it popular with the users of radio receiving sets, but was comparatively unknown in Chicago or its vicinity.”]

[Analysis]

The facts in this case, as charged by the bill and admitted by the answer, together with the additional facts set out in the bill as matters of defense, disclose a situation new and novel in a court of equity and a consideration of the law applicable to the facts requires an understanding of the present conditions for the purpose of ascertaining whether or not the old adage of “Old laws should be adapted to new facts” should be applied and for that reason a short statement of general existing conditions is not out of order at this time before considering the legal and equitable aspects of the cause.

It is a matter of general knowledge that in the last few years there has grown up in the United States, as well as abroad, a well recognized calling or business known as broadcasting which consists in sending from a central station, electrically equipped, programs of music and amusement, speeches by men of prominence, news of the day and items of interest taking place in the world, and that these various programs are received by the public over radio receiving sets which have been installed in homes, hotels, and various other places, and that a large industry has grown up and developed in the making and manufacturing of radio sets, so that in the United States, at this time, there are millions of dollars invested by the public at large, which has made the investment for the purpose of and with the knowledge that they could receive these programs, speeches, and items of interest from various broadcasting stations located in various parts of the United States and in other countries.

It might also be stated that, so far as broadcasting stations are concerned, there has almost grown up a custom which recognizes the rights of the various broadcasters, particularly in that certain broadcasters use certain hours of the day, while the other broadcasters remain silent during that particular period of time. Again, in this particular locality, a certain night is set aside as silent night, when all local broadcasters cease broadcasting in order that the radio receivers may be able to tune in on outside distant stations.

Wave lengths have been bought and sold and broadcasting stations have changed hands for a consideration. Broadcasting stations have contracted with each other so as to broadcast without conflicting and in this manner be able to present their different programs to the waiting public. The public itself has become educated to the use of its receiving sets so as to be able to obtain certain particular items of news, speeches, or programs over its own particular sets.

The theory of the bill in this case is based upon the proposition that by usage of a particular wave length for a considerable length of time and by reason of the expenditure of a considerable amount of money in developing its broadcasting station and by usage of a particular wave length educating the public to know that that particular wave length is the wave length of the complainant and by furnishing programs which have been attractive and thereby cause a great number of people to listen in to their particular programs that the said complainant has created and carved out for itself a particular right or easement in and to the use of said wave length which should be recognized in a court of equity and that outsiders should not be allowed thereafter, except for good cause shown, to deprive them of that right and to make use of a field which had been built up by the complainant at a considerable cost in money and a considerable time in pioneering. . . .

The defendants further insist that a wave length can not be made the subject of private control and, further and lastly, that as a matter of fact they are not interfering with the complainant by the use of the present wave length employed by them from their broadcasting station. . . .

[The court discussed the 1912 federal statute which required a license to broadcast by radio and restricted the wavelengths available, as discussed above. It concluded that the statute did not displace state law.]

In the first place, it is argued that there are no rights in the air and that the law has no right or authority to restrict the using of wave lengths or to exclude others from their use. In answer to this it might be said that Congress has already attempted to regulate the use of the air in its enactment of August 13, 1912, by providing that only certain strata of the air or ether may be used for broadcasting purposes and, further, requiring persons to take out a license before they are permitted to exercise the use of the air or ether. Moreover, it appears to this court that the situation is such from the past development of the industry of broadcasting and radio receiving and from the apparent future, as indicated by the past, that,

unless some regulatory measures are provided for by Congress or rights recognized by State courts, the situation will result in chaos and a great detriment to the advancement of an industry which is only in its infancy.

While it is true that the case in question is novel in its newness, the situation is not devoid, however, of legal equitable support. The same answer might be made, as was made in the beginning; that there was no property right, or could be, in a name or sign, but there has developed a long line of cases, both in the Federal and State courts, which has recognized, under the law known as the law of unfair competition, the right to obtain a property right in a name or word or collection of names or words[†] which gives the person who first made use of the same a property right therein, provided that by reason of their use, he has succeeded in building up a business and created a good will which has become known to the public and to the trade and which has served as a designation of some particular output so that it has become generally recognized as the property of such person. The courts have held that persons who attempt to imitate or to make use of such trade name or names or words evidently do so for the purpose of enriching themselves through the efforts of some other person who by the investment of money and time has created something of value. Equity has invariably protected the rights of such persons in the use of said names.

It is also true that the courts have recognized, particularly in the west, the right to the use of running water for the purposes of mining and other uses. (*Atchison v. Peterson*, 20 Wall. 507; *Cache La Poudre Reservoir v. Water Supply & Storage Co.*, 25 Colo. 161.)

Some of the States have also recognized the rights of telephone and telegraph companies in the operation of their lines free from interference by lines of other companies placed in such close proximity as to create confusion by reason of electrical interference. (*Western Union Telegraph Co. v. Los Angeles Electric Co.*, 70 Fed. 178; *Northwestern Telephone Exchange Co. v. Twin City Telephone Co.*, 89 Minn. 4115; and other cases.)

It is argued that the electrical cases generally involve a franchise and thereby a property right, but the cases on electrical interference are cited more particularly for the purpose of their analogy to the case at bar and not as authorities on the question.

[†] I.e., a trademark. —Eds.

In regard to the water cases, counsel for the defendants call our attention to the rule in this State, as set forth in the case of *Druley v. Adam* (102 Ill. 177), where the court says in its opinion, page 193,

The law has been long settled in this State that there can be no property merely in the water of a running stream. The owner of land over which a stream of water flows has, as incident to his ownership of the land, a property right in the flow of the water at that place for all the beneficial uses that may result from it, whether for motive power in propelling machinery or in imparting fertility to the adjacent soil, etc.; in other words, he has a usufruct in the water while it passes; but all other riparian proprietors have precisely the same rights in regard to it and, apart from the right of consumption for supplying natural wants, neither can, to the injury of the other, abstract the water or divert or arrest its flow.

The same court, however, in its opinion, on page 201, while holding that the western water cases are not applicable, recognized the law as laid down in those cases and distinguished them on the ground that it is apparent that the law necessarily arose in those cases by reason of the peculiar circumstances and necessities existing in those countries at the time.

It is the opinion of the court that, under the circumstances as now exist, there is a peculiar necessity existing and that there are such unusual and peculiar circumstances surrounding the question at issue that a court of equity is compelled to recognize rights which have been acquired by reason of the outlay and expenditure of money and the investment of time and that the circumstances and necessities are such, under the circumstances of this case, as will justify a court of equity in taking jurisdiction of the cause. Such being the case, it becomes the duty of the court to consider the last question, namely, whether or not there is such an interference by the defendants with the broadcasting station of complainant that the temporary injunction heretofore granted should be kept in force until a final hearing of the cause.

[W]e believe that the equities of the situation are in favor of the complainant on the facts as heretofore shown, particularly in that the complainant has been using said wave length for a considerable length of time and has built up a large clientage, whereas the defendants are but newly in the field and will not suffer as a result of an injunction in proportion to the

damage that would be sustained by the complainant after having spent a much greater length of time in the education of the general radio-receiving public to the wave length in question.

We are of the opinion further that, under the circumstances in this case, priority of time creates a superiority in right, and the fact of priority having been conceded by the answer it would seem to this court that it would lie only just that the situation should be preserved in the status in which it was prior to the time that the defendants undertook to operate over or near the wave length of the complainant. . . .

It is difficult to determine at this time how a radio station should be properly run, but it is, also, true that the science of broadcasting and receiving is being subject every day to change and it is possible that within it short time this may be accomplished, although it is the opinion of the court from an examination of the affidavits and exhibits in the cause that 40 kilocycles is not at this time recognized as a safe limitation for the prevention of interference between stations located in the same locality. It is true that stations sufficiently removed from each other can broadcast even over the same wave length, but it necessarily follows that they must be so far apart that the wave lengths do not reach or come in contact with each other to the extent of creating interference.

In the case at bar the contestants are so located with reference to each other that the court does not feel that 40 kilocycles is sufficient. The court is of the opinion, however, that until there has been a final hearing of this cause no order prohibiting the defendants from the use of any particular wave length should be entered and to that extent the order heretofore entered will be modified so that it will read that the defendants are restrained and enjoined from broadcasting over a wave length sufficiently near to the one used by the complainant so as to cause any material interference with the programs or announcements of the complainant over and from its broadcasting station to the radio public within a radius of 100 miles, and in order that the defendants may be apprised of the feeling of the court in this regard, while the order is not expressly one of exact limitation, nevertheless the court feels that a distance removed 50 kilocycles from the wave length of the complainant would be a safe distance and that if the defendants use a wave length in closer proximity than the one stated it must be at the risk of the defendants in this cause.

Notes and Questions

1.10. *Oak Leaves* is a road not taken. This report of the case comes from the *Congressional Record*. Senator Clarence Dill (D-WA) had it read into the record on December 10, 1926 (i.e. the month after it was decided) because of its bearing on a radio regulation bill he co-sponsored.¹ That bill became the Radio Act of 1927, which established the licensing system whose essentials are still in force today. Broadcasters require a license from the Federal Communications Commission; those licenses specify, in some detail, the frequency on which they can broadcast, the locations of their transmitters, and the power they can use. The licenses started out being heavily regulated to ensure that each broadcaster's programs served the public interest, but over time the licensing process has become far more ministerial. Subject to some concentrated-ownership restrictions and a few miscellaneous content rules (e.g. compliance with the Emergency Broadcasting System and some rules on children's programming), a broadcaster is free to transmit whatever programming it wants as long as it complies with the FCC's technical requirements. The result is a system that divides the airwaves into geographic and frequency blocks, and gives each of these blocks an exclusive licensee. Anyone else broadcasting on these frequencies in these places is violating the law. Similar systems hand out the right to use other frequencies for other purposes (e.g. mobile phone towers, police radios, satellite communications, etc.). In effect, any unauthorized use of someone else's assigned spectrum is illegal.

Compare this system with the common-law process illustrated by *Oak Leaves*. One obvious difference is how one acquires rights in a frequency: prior use versus governmental assignment. Which of the two seems more likely to lead to an efficient allocation of resources to those best able to make good use of them? Which is fairer to participants? Which is more likely to serve the interests of the listening public? Another evident difference is the different tests for violation of another's rights. Is it fair to say that the FCC exclusive licensing are protected by a kind of right against trespass, while *Oak Leaves* more closely resembles the test for nuisance? Are there any other relevant differences?

The change in the FCC's policies over time is interesting, too. If broadcasting is to be based on licenses, how ought those licenses be given out? And should the FCC care what a licensee does with a license after that? There was a time when lis-

¹Being read into the record is not necessarily a sign of importance. Five pages later, Senator Byron Harrison (D-MS) had one of Aesop's fables read into the record to make a point about Republican political maneuvering.

teners' groups routinely filed lawsuits to keep radio stations from changing their formats. See, e.g., *Citizens Committee to Keep Progressive Rock v. FCC*, 478 F. 2d 926 (D.C. Cir. 1973) (remanding to FCC for hearing on whether to allow WGLN to change from "progressive rock" to "middle of the road"). Would that be a better system? Or should the FCC get even further out of the business and not care how licensees use their assigned spectrum at all—e.g., if a licensee wants to stop transmitting FM radio and use the spectrum for mobile phone calls, why should the FCC care? Does calling broadcasting licenses "property" do anything to answer these questions?

Here's another alternative: no licenses at all, and let anyone use the spectrum however they see fit. Before you scoff at this "commons" approach to spectrum allocation, consider that this is how WiFi works. You don't need an FCC license to plug in a home wireless router. The frequency range from 2.4 gigahertz (i.e. 2.4 billion cycles per second) to 2.5 gigahertz is "unlicensed"; the FCC regulates the maximum power that a device can emit, but otherwise, anyone is basically free to use any device they want however they want. How well does your WiFi connection typically work? What about the chaos of interference *Oak Leaves* feared? Would this approach work on a wider scale?

1.11. *Oak Leaves* presents its holding as an almost inevitable consequence of the nature of spectrum. But what is spectrum? Radio broadcasting works by running an electric current through the right kind of circuit, which results in electromagnetic radiation spreading in certain ways that people with the right kinds of devices can detect. Why isn't the relevant "property" here the transmitter and the receiver (both tangible personal property), or the land over which the radiation passes (real property)? So why not handle broadcasting cases using personal property torts ("You damaged my radio tower by interfering with its transmissions") or real property torts ("You trespassed by sending electromagnetic radiation over my land")? Consider this passage from Ronald Coase, *The Federal Communications Commission*, 2 J. L. ECON. 1 (1959):

What does not seem to have been understood is that what is being allocated by the Federal Communications Commission, or, if there were a market, what would be sold, is the right to use a piece of equipment to transmit signals in a particular way. Once the question is looked at in this way, it is unnecessary to think in terms of ownership of frequencies or the ether. Earlier we discussed a case in which it had to be decided whether a confectioner had the right to use machinery which caused noise and vibrations in a neighboring house. It would not have facilitated

our analysis of the case if it had been discussed in terms of who owned sound waves or vibrations or the medium (whatever it is) through which sound waves or vibrations travel. Yet this is essentially what is done in the radio industry. The reason why this way of thinking has become so dominant in discussions of radio law is that it seemed to have developed by using the analogy of the law of airspace. In fact, the law of radio and television has been commonly treated as part of the law of the air. It is not suggested that this approach need lead to the wrong answers, but it tends to obscure the question that is being decided. Thus, whether we have the right to shoot over another man's land has been thought of as depending on who owns the airspace over the land. It would be simpler to discuss what we should be allowed to do with a gun. . . . The problem confronting the radio industry is that signals transmitted by one person may interfere with those transmitted by another. It can be solved by delimiting the rights which various persons possess.

Is this any more helpful than *Oak Leaves's* analogies to trademarks and water rights?

A related argument is that "spectrum" is the wrong abstraction for regulating multiple people's simultaneous broadcasting. It is true that given the amplitude-modulating radio technology of 1926, WGN's and WGES's broadcasts on nearby frequencies from nearby locations were likely to cause frustrating interference for listeners. But technology changes, and more broadcast technologies don't depend on exclusive assignments of slices of spectrum. One approach is "spread-spectrum," in which a device transmits at a given frequency only for a very short burst and then "hops" to a different frequency for the next bit of its transmission, and so on. This is basically how modern cell phones communicate with towers; the system allows many devices to "share" the same nominal slice of spectrum. Another emerging technology is "ultra-wideband," in which a device transmits on an immensely wide range of frequencies but with very low power—so low that it interferes only minimally with other spectrum users. There are also techniques that involve shaping the geometry of a transmission so it travels only in desired directions. What would *Oak Leaves* have to say about these new technologies? Is it more or less accommodating of them than the FCC's regulatory system?

1.12. What do you make of the defendant's argument that WGN's station was "improperly constructed and operated?" If WGES is causing interference to WGN's signal, should it matter that WGN could avoid the problem by fixing its equipment?

Should it matter how much the changes would cost? On how well-established the appropriate technical standards are?

For that matter, what about better receivers? If more modern radios would allow people in the Chicago area to tune in to WGN at 990 kilohertz without hearing interference from WGES at 950 kilohertz (and vice versa), should WGN really be able to push WGES off the airwaves just because some listeners have antiquated radios? (To borrow the court's analogy to trademarks, what if some people are just confused all the time about everything?)

These can be high-stakes fights. The company LightSquared wanted to build a nationwide wireless network using a mixture of cell towers and satellites. It had FCC permission to use frequencies between 1525 and 1559 megahertz, but the next spectrum band up, from 1559 to 1610 megahertz, was allocated to “radionavigation satellite services”—i.e., GPS. Technical reports agreed with the arguments of GPS makers that LightSquared's proposed transmissions would cause many GPS units, including some on airplanes, to stop working. LightSquared argued that this was not because it would be improperly transmitting outside its assigned band, but because GPS units would be improperly *listening* to transmissions outside of their assigned band. According to LightSquared, inexpensive filters in GPS units would have fixed the problem—but there are millions of GPS units already out there in the world without those filters. In the end, the FCC scrapped LightSquared's plan. Would you have? LightSquared spent three years in bankruptcy following the FCC's decision, and racked up nearly \$2 billion in losses. Could a better system of property rights in spectrum have avoided the conflict entirely?

1.13. Does *Oak Leaves* give legal recognition to property that already exists or create property where none existed before? Or is “property” the wrong way to refer to WGN's rights here?

1.4 Intellectual Property

Walters exemplifies **peripheral claiming**, in which the owned property is defined based on the positions of its edges (the “periphery” of the property). The other option for describing property boundaries is **central claiming**, in which the owner places a stake in the ground and asserts ownership in anything sufficiently close to the stake. (You might have seen this idea in movies about the old American West.) For real property, peripheral claiming is used almost exclusively today, as it has the tremendous advantage of precision.

With intellectual property, though, it is often not so simple to identify the boundaries. Patents rely on peripheral claiming: The text of a patent document contains paragraphs called “patent claims” that lay out, in detailed legal and technical terminology, the boundaries of what the patent holder considers the “invention,” such that products or services falling within those boundaries are infringing. Here’s an example of one such patent claim, from U.S. Patent No. 6,004,596:

1. A sealed crustless sandwich, comprising:
 - a first bread layer having a first perimeter surface coplanar to a contact surface;
 - at least one filling of an edible food juxtaposed to said contact surface;
 - a second bread layer juxtaposed to said at least one filling opposite of said first bread layer, wherein said second bread layer includes a second perimeter surface similar to said first perimeter surface;
 - a crimped edge directly between said first perimeter surface and said second perimeter surface for sealing said at least one filling between said first bread layer and said second bread layer;
 - wherein a crust portion of said first bread layer and said second bread layer has been removed.

You can think of the patent claim as a checklist. A sandwich meeting all the listed requirements (first bread layer, filling of an edible food, etc.) would “fall within the scope of the patent claim,” and thus infringe the patent holder’s rights.

Despite the seeming complexity of the words in patent claims, they are a far cry from the precision of real estate boundaries. In the sandwich patent claim, for example, what’s “bread”? Does a cracker count? There’s a “first bread layer” and a “second bread layer,” but what about three-layer club sandwiches? Does a hot dog bun count as one bread layer or two? The process of a court resolving these ambiguities and determining what exactly a patent claim covers is called *claim construction*, and it is one of the most difficult and uncertain parts of patent litigation.

There is a limit on how much ambiguity a patent claim can have. According to 35 U.S.C. § 112(b), a patent claim must “particularly point[] out and distinctly claim[] the subject matter which the inventor or a joint inventor regards as the invention.” A patent claim that fails this requirement is considered “indefinite” and invalid. In *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898 (2014), the Supreme Court in-

interpreted this provision generously, holding that a patent claim need only provide “reasonable certainty” and not absolute precision.

What are the arguments for and against greater precision in patent claims? Think from the perspective of a manufacturer trying to avoid infringing a patent—does it seem unfair that the manufacturer can’t know without expensive litigation? Could ambiguity in patent claims be exploited in problematic ways? On the other hand, do you see any difficulties in requiring inventors to find precise words to describe their inventions?

Peripheral claiming is difficult for patents, but virtually impossible for copyrights and trademarks. Could you describe, in precise words, the extent of things that are too much like *Harry Potter* or the Nike swoosh? As a result, central claiming is necessary for these. A copyright, for example, creates a right to exclude other works that are “substantially similar” to the copyright-protected one—a form of central claiming. A trademark similarly blocks “confusingly similar” marks and uses. That means, however, that the task of determining infringement of these centrally-claimed forms of intellectual property is a fact-intensive, difficult question for courts, often involving fuzzy multi-factor tests.

Steinberg v. Columbia Pictures Industries, Inc.

663 F. Supp. 706 (S.D.N.Y. 1987)

STANTON, District Judge.

In these actions for copyright infringement, plaintiff Saul Steinberg is suing the producers, promoters, distributors and advertisers of the movie “Moscow on the Hudson” (“Moscow”). Steinberg is an artist whose fame derives in part from cartoons and illustrations he has drawn for *The New Yorker* magazine. . . . Plaintiff alleges that defendants’ promotional poster for “Moscow” infringes his copyright on an illustration that he drew for *The New Yorker*

II

The essential facts are not disputed by the parties despite their disagreements on nonessential matters. On March 29, 1976, *The New Yorker* published as a cover illustration the work at issue in this suit, widely known as a parochial New Yorker’s view of the world. The magazine registered this illustration with the United States Copyright Office and subsequently assigned the copyright to Steinberg. . . .



Figure 1.2: Steinberg's copyrighted magazine cover, and the accused movie poster.

Defendants' illustration was created to advertise the movie "Moscow on the Hudson," which recounts the adventures of a Muscovite who defects in New York. In designing this illustration, Columbia's executive art director, Kevin Nolan, has admitted that he specifically referred to Steinberg's poster, and indeed, that he purchased it and hung it, among others, in his office. Furthermore, Nolan explicitly directed the outside artist whom he retained to execute his design, Craig Nelson, to use Steinberg's poster to achieve a more recognizably New York look. Indeed, Nelson acknowledged having used the facade of one particular edifice, at Nolan's suggestion that it would render his drawing more "New York-ish." While the two buildings are not identical, they are so similar that it is impossible, especially in view of the artist's testimony, not to find that defendants' impermissibly copied plaintiff's.¹

¹Nolan claimed also to have been inspired by some of the posters that were inspired by Steinberg's; such secondary inspiration, however, is irrelevant to whether or not the "Moscow" poster infringes plaintiff's copyright by having impermissibly copied it.

[The court provided its own textual description of the illustration and the poster. But you can view them both in Figure 1.2 and evaluate them for yourself.]

III

To succeed in a copyright infringement action, a plaintiff must prove ownership of the copyright and copying by the defendant. *Reyher v. Children's Television Workshop*, 533 F.2d 87, 90 (2d Cir. 1976). There is no substantial dispute concerning plaintiff's ownership of a valid copyright in his illustration. Therefore, in order to prevail on liability, plaintiff need establish only the second element of the cause of action.

"Because of the inherent difficulty in obtaining direct evidence of copying, it is usually proved by circumstantial evidence of access to the copyrighted work and substantial similarities as to protectible material in the two works." *Reyher*, 533 F.2d at 90. . . . Defendants' access to plaintiff's illustration is established beyond peradventure. Therefore, the sole issue remaining with respect to liability is whether there is such substantial similarity between the copyrighted and accused works as to establish a violation of plaintiff's copyright. . . .

"Substantial similarity" is an elusive concept. This circuit has recently recognized that

[t]he "substantial similarity" that supports an inference of copying sufficient to establish infringement of a copyright is not a concept familiar to the public at large. It is a term to be used in a courtroom to strike a delicate balance between the protection to which authors are entitled under an act of Congress and the freedom that exists for all others to create their works outside the area protected by infringement.

The definition of "substantial similarity" in this circuit is "whether an average lay observer would recognize the alleged copy as having been appropriated from the copyrighted work." *Ideal Toy Corp. v. Fab-Lu Ltd.*, 360 F.2d 1021, 1022 (2d Cir. 1966). . . . Moreover, it is now recognized that "[t]he copying need not be of every detail so long as the copy is substantially similar to the copyrighted work." *Comptone Co. v. Rayex Corp.*, 251 F.2d 487, 488 (2d Cir. 1958).

In determining whether there is substantial similarity between two works, it is crucial to distinguish between an idea and its expression. It

is an axiom of copyright law, established in the case law and since codified at 17 U.S.C. § 102(b), that only the particular expression of an idea is protectible, while the idea itself is not. *See, e.g., Durham Industries*, 630 F.2d at 912. “The idea/expression distinction, although an imprecise tool, has not been abandoned because we have as yet discovered no better way to reconcile the two competing societal interests that provide the rationale for the granting of and restrictions on copyright protection,” namely, both rewarding individual ingenuity, and nevertheless allowing progress and improvements based on the same subject matter by others than the original author.

There is no dispute that defendants cannot be held liable for using the *idea* of a map of the world from an egocentrically myopic perspective. No rigid principle has been developed, however, to ascertain when one has gone beyond the idea to the expression, and “[d]ecisions must therefore inevitably be ad hoc.” As Judge Frankel once observed, “Good eyes and common sense may be as useful as deep study of reported and unreported cases, which themselves are tied to highly particularized facts.”

Even at first glance, one can see the striking stylistic relationship between the posters, and since style is one ingredient of “expression,” this relationship is significant. Defendants’ illustration was executed in the sketchy, whimsical style that has become one of Steinberg’s hallmarks. Both illustrations represent a bird’s eye view across the edge of Manhattan and a river bordering New York City to the world beyond. Both depict approximately four city blocks in detail and become increasingly minimalist as the design recedes into the background. Both use the device of a narrow band of blue wash across the top of the poster to represent the sky, and both delineate the horizon with a band of primary red.³

The strongest similarity is evident in the rendering of the New York City blocks. Both artists chose a vantage point that looks directly down a wide two-way cross street that intersects two avenues before reaching a river. Despite defendants’ protestations, this is not an inevitable way of depicting blocks in a city with a grid-like street system, particularly since

³Defendants claim that since this use of thin bands of primary colors is a traditional Japanese technique, their adoption of it cannot infringe Steinberg’s copyright. This argument ignores the principle that while “[o]thers are free to copy the original . . . [t]hey are not free to copy the copy.” *Bleistein v. Donaldson Lithographing Co.*, 188 U.S. 239, 250 (1903) (Holmes, J.).

most New York City cross streets are one-way. Since even a photograph may be copyrighted because “no photograph, however simple, can be unaffected by the personal influence of the author,” one can hardly gainsay the right of an artist to protect his choice of perspective and layout in a drawing, especially in conjunction with the overall concept and individual details. Indeed, the fact that defendants changed the names of the streets while retaining the same graphic depiction weakens their case: had they intended their illustration realistically to depict the streets labeled on the poster, their four city blocks would not so closely resemble plaintiff’s four city blocks. Moreover, their argument that they intended the jumble of streets and landmarks and buildings to symbolize their Muscovite protagonist’s confusion in a new city does not detract from the strong similarity between their poster and Steinberg’s.

While not all of the details are identical, many of them could be mistaken for one another; for example, the depiction of the water towers, and the cars, and the red sign above a parking lot, and even many of the individual buildings. The shapes, windows, and configurations of various edifices are substantially similar. The ornaments, facades and details of Steinberg’s buildings appear in defendants’, although occasionally at other locations. In this context, it is significant that Steinberg did not depict any buildings actually erected in New York; rather, he was inspired by the general appearance of the structures on the West Side of Manhattan to create his own New York-ish structures. Thus, the similarity between the buildings depicted in the “Moscow” and Steinberg posters cannot be explained by an assertion that the artists happened to choose the same buildings to draw. The close similarity can be explained only by the defendants’ artist having copied the plaintiff’s work. Similarly, the locations and size, the errors and anomalies of Steinberg’s shadows and streetlight, are meticulously imitated.

In addition, the Columbia artist’s use of the childlike, spiky block print that has become one of Steinberg’s hallmarks to letter the names of the streets in the “Moscow” poster can be explained only as copying.² There is no inherent justification for using this style of lettering to label New York City streets as it is associated with New York only through Steinberg’s poster.

²[This footnote was originally in the fact background:] The typeface is not a subject of copyright, but the similarity reinforces the impression that defendants copied plaintiff’s illustration.

While defendants' poster shows the city of Moscow on the horizon in far greater detail than anything is depicted in the background of plaintiff's illustration, this fact alone cannot alter the conclusion. "Substantial similarity" does not require identity, and "duplication or near identity is not necessary to establish infringement." Neither the depiction of Moscow, nor the eastward perspective, nor the presence of randomly scattered New York City landmarks in defendants' poster suffices to eliminate the substantial similarity between the posters. As Judge Learned Hand wrote, "no plagiarist can excuse the wrong by showing how much of his work he did not pirate."

Defendants argue that their poster could not infringe plaintiff's copyright because only a small proportion of its design could possibly be considered similar. This argument is both factually and legally without merit. "[A] copyright infringement may occur by reason of a substantial similarity that involves only a small portion of each work." Moreover, this case involves the entire protected work and an iconographically, as well as proportionately, significant portion of the allegedly infringing work.

The process by which defendants' poster was created also undermines this argument. The "map," that is, the portion about which plaintiff is complaining, was designed separately from the rest of the poster. The likenesses of the three main characters, which were copied from a photograph, and the blocks of text were superimposed on the completed map.

I also reject defendants' argument that any similarities between the works are unprotectible *scenes a faire*, or "incidents, characters or settings which, as a practical matter, are indispensable or standard in the treatment of a given topic." It is undeniable that a drawing of New York City blocks could be expected to include buildings, pedestrians, vehicles, lamp-posts and water towers. Plaintiff, however, does not complain of defendants' mere use of these elements in their poster; rather, his complaint is that defendants copied his *expression* of those elements of a street scene.

Notes and Questions

1.14. Have you seen one of these *New Yorker*-style map drawings before? (Perhaps you've drawn one?) Did you stop to think whether they were copyright infringing?

1.15. As this case shows, the “substantial similarity” standard for copyright infringement—that is, the boundary of copyright protection—comes with an important caveat. The “idea–expression dichotomy” doctrine specifies that ideas are not subject to copyright protection and thus may be freely copied. The dividing line between ideas and expression is not (and probably cannot be) precisely defined, but you probably have a basic intuition for it. One can copy the basic framework of *Romeo and Juliet* into a new work, say *West Side Story*, without taking any of the words of Shakespeare’s expression.

The court here seems convinced that expression, and not just ideas, was copied in this case. Do you agree? Is there any specific element that is actually the same between the two pictures (other than the fonts, which the court notes are not copy-rightable), that seems significant enough to call “expression”?

1.16. Should overall style be within the boundaries of a copyright? For example, if an artist is known for paintings that use bright primary colors and grid-like black lines (that is, Piet Mondrian), is it copyright infringement to make another painting with those same colors and grid lines, but arranged differently?

Generally, courts have been reluctant to treat artistic style alone as copy-rightable expression. The question has received increasing prominence recently, though, due to the ability of generative artificial intelligence to produce artwork in the style of known artists.

1.17. The shape of useful articles, like cars, is typically not copyright protectable. The reason is somewhat complex, but generally it is because if the shape of the car makes the car perform better, then the car shape should be the subject of a patent, not a copyright. Unrelatedly, characters in stories are copyrightable. That is why it is an infringement to make a sequel, among other things.

What about the Batmobile? See *DC Comics v. Towle*, 802 F.3d 1012 (9th Cir. 2015).