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SUBDIVIDING THE AIR

A NEW METHOD OF ACQUIRING AIR RIGHTS

Herbert Becker*

The choicest field for the acquisition of the air for office and business buildings is the air space over railroad tracks running through the center of a large city. In our great cities where space is becoming ever more precious, it is only natural that air rights over railroad tracks would be used for the erection of tall buildings whose proximity to the heart of the city makes them indispensable and valuable. The utilization of these air rights occurred years ago in eastern cities, where congestion has been an old, old story. Almost everyone is familiar with the common instances of the use of air rights in New York City. There miles and miles of railroad tracks are covered with all kinds of improvements, including hotels, office buildings and streets. Under the famous Park Avenue and under the buildings along that street the New York Central runs all of its passenger trains into the Grand Central Station.

In Chicago this field is very extensive and absolutely untouched. There is a vast stretch of tracks belonging to the Illinois Central running for more than five miles along the lake front which could be used in this way. The Illinois Central's freight yard lies in the front yard of Chicago in the heart of its most valuable real estate section. Just north of the Chicago River, less than a mile from the center of Chicago's loop is a long stretch of railroad tracks belonging to the Chicago & North Western Railroad. Just west of the Chicago River, also less than a mile from the heart of the city, is another long stretch of tracks belonging to various rail-

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roads, such as the Pennsylvania, the Burlington, the Chicago, Milwaukee & St. Paul, and the Union Station Company. Park Avenue in New York City has already been mentioned, and no doubt there are similar stretches of tracks in every important city which lie near the center of the city and over which the air rights could be used. There is no doubt that it will not be many years before we will see these valuable air rights improved with beautiful buildings and perhaps boulevards.

The method of appropriating the air rights over railroad tracks depends entirely upon the character of the ownership of the property. If the railroad has only an easement and not the fee, of course, no fee simple title can be obtained of the air rights. In such a case the railroad would have to give a lease of the air rights. The disposition of the air is also dependent upon whether the fee title is owned by the railroad company or by a holding corporation, or an individual. If a holding corporation or individual owns the land free from a mortgage, which is often the case, then the air rights can either be sold or leased as the parties prefer. But if a railroad company is the owner in fee of its tracks, the only method of acquiring the air rights over its tracks is by a purchase. This requires further explanation.

Now, as is well known, the railroads all have mortgages covering their tracks and other property, which in the case of each railroad run into hundreds of millions of dollars. No one could think of purchasing air rights and foundation rights and investing large sums of money in erecting a building on the property unless he could first obtain a title to his foundation and air free and clear of the railroad mortgages on the property. The railroad mortgages all provide for a release of the mortgage by the trustee under certain conditions mentioned in the mortgage, but the only one we are concerned with is the one that gives the trustee the right to release the mortgage only in case the railroad has
sold or contracted to sell its real estate or other pro-
erty. These mortgages do not give the trustee the right
to release property upon which the railroad grants a
lease or an easement.

It follows, therefore, that there must be a sale of
property before the trustee can give a valid release, and
that no valid release can be obtained under any other
arrangement. Thus, if a lease were to be made in such
a case and the lessee were to erect a building, he could
not finance his building since it would be subject to the
railroad mortgages, and he would also run the risk of
losing his property upon a foreclosure of the railroad
mortgages. This situation, therefore, makes it neces-
sary, in order to be secure, to purchase from the rail-
road the air rights and foundation rights upon which
to erect a building.

It was in the case of the first air right deal in Chi-
cago, which has just been completed, that for the first
time a subdivision was made of both land and air. It
will be my purpose in this paper to explain this novel
subdivision of land and air.

Air, as such, is the subject of qualified property by oc-
cupancy. One of the best statements explaining this
qualified ownership of air is found in the case of Wood
County Petroleum Co. vs. West Virginia Transportation
Co., 28 W. Va., 210 in which the Court said:

"Every owner of land has the control of and the use
and appropriation of the air and water on his land, but
this control can be asserted only by denying access to
the land, and not by demanding compensation from
those who are in the rightful occupancy of the land.
And having the right to exclude others from his land,
the owner may by contract provide that those who de-
sire the air, or mineral, or the waters on his land, shall
pay him a stipulated price for the use of the same, and
such a contract would be enforcible in law. But in such
a case the contract must be express, because the owner-
ship is qualified, and the law will not raise an implication for the payment for the use of such property. These being incapable of absolute ownership, they cannot be the subject of compensation for waste or appropriation where the access is rightful, and where it is wrongful the measure of damages will be limited to the injury done to the land."

It will be seen from this statement that air is not capable of absolute ownership. As applied to the problem here to be described, to make a conveyance to a purchase of all the air lying situated above a plane 40 feet above the ground would probably convey nothing, because such property is not capable of ownership. There is no doubt, however, that if such a conveyance is connected with the use of ownership of the tangible earth it will pass a good title to the air. It is elementary law that the title of the owner of land extends upwards indefinitely and downwards to the earth's centre, embracing everything upon the surface and everything beneath it. And it is equally elementary that land is capable of ownership in layers. Estates in fee simple in minerals in place, for instance, have long been recognized. It is well established law that the owner of the fee of land has the absolute right of property in the mines and quarries beneath the surface, and all the mineral substances while thus in place are things of a real and not personal character, and that part of the land consisting of minerals, or of specified minerals may be made the subject of separate or distinct ownership. The severance of this ownership of strata of minerals beneath the surface of the land from the ownership of the surface land gives rise to many new legal questions respecting the rights of the different owners which I cannot discuss at this time. This dual ownership in lands results from the composite elements of the earth comprising the land and its susceptibility of being divided up into these elements; hence,
one man may own the structures on the soil, another the surface, and a third the minerals beneath the surface. Does it not follow that another may own the space or air above the structures?

Separate ownership in fee simple of land and buildings has also been recognized. The Supreme Court of Massachusetts held in the case of *Stockwell v. Hunter*, 11 Metc. 448, that a grant of a room in a building gives the grantee a fee title to the room even though it does not carry any interest in the land. Such a grant carries no interest in the land unless the intention to create an interest in the land appears.

In examining this ownership of different strata of earth and sky, one excellent case was found which dealt specifically with the ownership of a vertical column of air. This was the case of *Cobert v. Hill*, L. R. 9 Eq. Cases 671, decided in England in 1870. The owner of two contiguous houses sold one by a deed which correctly described the ground site of the house conveyed, but conveyed it as then occupied by the owner. The purchaser pulled down the house when it was discovered that one of the rooms of the house, retained by the owner, projected into and was supported by the house conveyed. The purchaser in rebuilding, claimed the right of building over the projecting room, and the vendor sought to restrain him by injunction. The question was, whether the projecting room was a diminution of so much of the freehold, including the right upwards and downwards, as was defined horizontally by a section of the room, or whether such a space only was carved out of the freehold as was included between the top and bottom of the projecting room. The Court held that the vertical column of air, over so much of the room as overhung the site conveyed to the purchaser, belonged to him, and not to the owner of such room and adjoining building. The injunction was accordingly refused.
The ownership of land in layers being so well recognized and the law in relation thereto being so well established it was thought feasible to subdivide the land and the air. In order to best facilitate the purchase of such property as the purchaser needed for the purpose of building a building over the tracks of the railroad, it was deemed advisable to subdivide the land of the railroad, both vertically and horizontally and to create a plat and lots which were easily described and located and capable of conveyance by lot numbers and by reference to a recorded plat. The subdivision plat of the land at, below and above the surface, in other words, of land and air, has been completed and the plat is now of record in the Recorder's Office of Cook County, Illinois. The creation of this subdivision plat gave rise to a most interesting task.

For a clearer understanding of the plan of subdivision of land and air, two sketches have been prepared. Figure 1 is a horizontal delineation and Figure 2 is a symbolic vertical delineation.

No precedent whatever was found for the method which was adopted, and the purchasers were distinctly pioneering in this field. It required the combined efforts of lawyers, engineers, surveyors and architects to coin the descriptions and the words and the phrases which were necessary to convey to the mind the idea of what was being subdivided and sold.

The purchaser wanted certain portions of the ground below O-O city datum to plant his caissons; he wanted to put columns on the caissons between O-O datum and 23 feet above O-O to support the building. His first floor of the building was to commence at 23 feet above datum. So the vertical subdivision had to be in three different layers. On the horizontal plane the circles (see Fig. 1) represent the boundaries of the caisson lots, and the rectangles within the circles represent the column or prism lots. The air lot commences at 23 feet
above city datum and covers the entire area of the property.

In his deed, then, the purchaser obtains a fee simple title of the caisson lots, that is, of all the land within the boundaries of each of the circles commencing at a plane at O-O datum and running downward to the center of the earth. By that deed the purchaser gets an absolute fee title to his foundation which can never be taken away from him and with which he may do anything he pleases. The description on the plat of the caisson lots reads like this:

"All the land, property and space at and below horizontal plane zero Chicago City Datum in 600 complete cylinders formed by projecting vertically downward from said plane, the circles forming the boundaries of said lots as represented on the plat."

Then the purchaser gets a deed to the fee simple title to all the land, property and space within vertical columns of air designated on the plat by lot numbers. These lots are in all instances rectangular prisms or columns of air, and it is within these columns of air that he erects his steel and concrete columns, resting them upon his caissons for the support of his building. There being railroad tracks upon the ground, it was necessary to invent these rectangular prisms, because if the caisson lots were extended upward to the level of twenty-three feet above datum there would not be room enough between the caissons for the railroad cars to clear. The phraseology of the prism lot description is as follows:

"All the land, property and space in 600 quadrangular prisms of the horizontal dimensions shown on the plat, extending vertically between horizontal planes respectively at zero and twenty-three feet above Chicago City Datum."

And finally the purchaser gets a deed to the air which lies over the entire area beginning at a plane which is
twenty-three feet above city datum. The air lot is conveyed in these words:

“All the land, property and space at and above a horizontal plane twenty-three feet above Chicago City Datum bounded, etc.” (Here the horizontal boundaries of the lot are given.)

This, in brief, is the system whereby absolute ownership is given to the purchaser of that part of the land and sky which he needs to build his building.

The railroad company conveys to the purchaser a fee simple title to the caisson lots, the prism lots and the air lot and the lien of the railroad mortgages is released as to these lots. The railroad company retains the title in fee simple of all the land from O-O datum downward between the caisson lots and all of the space from O-O datum upward to 23 datum between the prism lots. It is this last described space which the railroad company will use for its tracks and the operation of its trains. The property retained by the railroad company, of course, remains under the railroad mortgages.

The reader will have noticed the phraseology which was employed. It was sought to avoid a subdivision of “air” or a conveyance of “air.” The use of the word “air” by itself was feared. The phrase “land, property and space” was preferred. We could have said just “land,” because land includes the air and the air over land is land, but the words “land, property and space” leave no room to doubt what was conveyed, and avoid any possibility of indefiniteness or the technical rules of law which do not recognize absolute ownership in air as such.

The plat itself presented no end of problems. There had never been a plat like it and there was nothing to do but to blaze new trails. A plat can only show things on the surface. It would have been impossible to make a vertical delineation of every detail of the plat. The vertical delineation, therefore, had to be accomplished...
by legends alongside of the plat. These legends are thirty in number. Some are general and some deal with specific matters. A few of the general notes will give some idea how the vertical delineation had to be accomplished by words. Thus the first note is explanatory of the general scheme and reads as follows:

"Subdivision. The subdivision hereon shown divides the property subdivided, both land and space, below, at and above the surface of the earth by horizontal planes at elevations referred to Chicago City Datum as established by Section 1101 of the Chicago Municipal Code of 1922, and also by vertical planes or surfaces of revolution represented on the plat hereon shown by lines, circles or arcs of circles, such lines, circles and arcs being understood to be projected vertically upward and/or downward from the surface of the earth as required for the purposes hereof."

Another general note reads as follows: "Lot Descriptions. The lots shown hereon are composed respectively of the land, property and space mentioned therefor in the following list and located within the surfaces formed by projecting vertically upward and/or downward as required the boundaries of such lots as shown hereon and wherever in said description hereon lines are referred to, it is intended to mean where so required the surfaces formed by the vertical projection upward and/or downward of such lines."

Another general note defined the circle:

"Circle represents land, property and space within a vertical cylinder formed by projecting the circle vertically downward from a horizontal plane at elevation zero Chicago City Datum."

Still another general note dealt with quadrangles:

"Quadrangle represents the land, property and space within a vertical quadrangular prism of the dimensions set forth in the notes and marginal details endorsed elsewhere on this plat."
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For convenience and for reference in the deeds the lots were given numbers. The caisson lots were each given a number, and the prism lots within the caisson lots were given the same number with the letter "A" added. A legend explains this scheme.

"The number within the circle, segment, or other fraction of a circle is the number of the cylinder or fractional cylinder lot represented thereby. The same number with the letter 'A' following it is understood to be inserted in such quadrangle within such circle, segment or fraction of circle, and is the number of the prison lot represented by such quadrangle."

Another problem had to be worked out, namely, the location of each of the caisson lots and the prism lots with reference to a government monument. With 600 caisson lots and 600 prism or column lots within the caisson lots it would have been impossible to show the distance of each from a given monument. To simplify this, range lines were created running East and West, and North and South, and intersecting each other at right angles. The column or prism lots are made concentric with the caisson lots and the center of the caisson lot is the intersection of two range lines. (See Fig. 1) The distance between each range line is shown on the plat, so that to locate the center of any caisson or prism lot becomes merely a matter of adding up the distances between the range lines until you reach the range line which runs through the center of the lot sought to be located. Of course, the first range line in both directions is definitely fixed with reference to a well known monument. The legend on the plat which clarifies this is couched in this simple style:

"The range lines indicated hereon are either parallel with or at right angles to the South line of .............. Street, and the points of intersection of the North and South range lines with the East and West range lines
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are centers of the cylinder and prism lots hereon located at such points."

The dimensions of the circular caisson lots and the prism lots are, of course, all shown on the plat. The direction of the North and South lines and the East and West lines of the prism lots, or, in other words, the direction of the boundaries of the prism lots, is shown by marginal detail on the plat which gives the angle of the outside boundaries. This, in most cases, is 90 degrees, so that the boundaries of the prism lots are mostly parallel with the North line or the East line of the entire tract of land involved. All this detail makes it possible for a surveyor to go upon the land and absolutely and definitely locate the various lots conveyed, by the description used and the plat thereof. This is essential, for the test of the courts is that the property must be capable of location by a competent surveyor.

These, in brief, were some of the many details and problems which had to be solved in this new field. This was the first subdivision of the land at, below and above the surface. The plan has the definite advantages of absolute mathematical correctness and clearness. The purchaser knows exactly what he is paying for, and when he buys it he has the absolute title forever. Nothing can deprive him of his right to keep his caissons in the ground, or his steel columns on the caissons, and his buildings in the air.

It needs hardly to be mentioned that the scheme here outlined of purchasing caisson, prism and air lots required an agreement between the parties whereby the right of access to the caisson, prism and air lots is given to the purchaser, so that he may sink his caissons and erect his building. It is, no doubt, true that even without such an agreement the law would imply a right of access. In the case of minerals, for instance, the law is thoroughly settled that every express grant or reservation of minerals or mineral rights in a tract of land by necessary
implification passes to the grantee or reserves to the grantor certain rights incident thereto. The most important of these rights are to have access to the property for the purpose of opening the mines by sinking shafts or running tunnels, and to use such means as are necessary in getting out and removing the minerals. So the law has always recognized implied easements of access which are known as ways of necessity. The law in this regard may be tersely stated as follows: A way of necessity arises when one grants a parcel of land surrounded by his other land. In such cases the grantor impliedly grants a right of way over his land as incident to the purchaser's occupation and enjoyment of the grant. But even though this be clearly recognized, in a matter of this importance, involving as it does in this first subdivision and sale of the air, the erection of the world's largest office building, the right of access to the caisson, prism and air lots is not left to implication. Access was specifically granted for the purpose not only of building the building, but also for the purpose of making repairs whenever necessary at any time in the future.

There were, of course, many other details which had to be worked out and which are too numerous to discuss here. A few may be mentioned before concluding. One paragraph of the deed reads as follows:

"It is understood that soil conditions below a horizontal plane which is at elevation 50 below said Chicago City Datum may require the belling out or enlarging of some or all of the caissons which the purchaser desires to construct on said property, and it is agreed by the Railway Company in such event that the same may, below such horizontal plane at 50 feet below Chicago City Datum, be belled out or enlarged and may extend beyond the confines of the cylinder lots provided for such caissons."
Then there is the question of apportionment of taxes on the land, the deed contained ample provisions covering this. In addition to these, provisions were contained in the deed to protect the purchaser from too much smoke from the locomotives of the railway company, which agreed to minimize the smoke. As I have said before, there were many other details, all dealing with the specific location of sewers, tunnels, etc., but which not in the least impair the absolute ownership of that part of the land and air purchased by the purchaser.

In conclusion it may be said that no precedent exists for this novel subdivision. This task of creating it was one of the most interesting with which a lawyer can ever hope to have contact. It was indeed blazing a new trial. There is no doubt that it will serve as a model for many such transactions which are bound to greatly increase. The plan certainly furnished a clear and legal solution for the acquisition of a site for a building over railroad tracks, which could be released from the lien of the railroad mortgages.

In our great cities there are many miles of tracks available for the disposition of air rights. The railroads need only the ground and sufficient space above the ground for their cars. The space above that can and should be used under a plan such as here outlined. The validity of the title which the purchaser acquires in fee simple to the caisson, prism and air lots is beyond doubt.