

PLAT BOOK ARRANGEMENT

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INTRODUCTION

THE State of Texas is famous for many well known reasons. Well known, also, to the Engineer, Abstractor, or Map Maker, are the sources of title to lands in Texas, and the "headaches" encountered in dealing therewith.

In *Lectures on Real Estate* delivered by Judge Yancey Lewis to the Senior Law Class, University of Texas, the situation is summed up thusly: ". . . All the Governments which have exercised sovereign authority in Texas, except that of the United States, have, during the periods of their dominion, made grants of lands lying within its territorial limits to individuals. In addition, during the time that Texas was a part of the Mexican Republic, a small part of the area which now forms the State, which part is between the Rio Grande and Nueces River, was part of the State of Tamulipas, a member of the Mexican Republic, while much the greater part of the present area of Texas was then known as Texas, but was joined to the Mexican State of Coahuila. Both the State of Tamulipas and the States of Coahuila and Texas (united) made grants to individuals of lands lying within their respective jurisdictions. The sources of title to lands held by individuals in this State are, therefore (1) Spain; (2) Republic of Mexico; (3) the States of Coahuila and Texas; (4) the State of Tamulipas; (5) the Republic of Texas; (6) the State of Texas. . . ."

The "vara" ($33\frac{1}{3}$ inches) is the rather unique medium of measurement used in all original Surveys in Texas. Spanish and Mexican Grants are some what vague in describing metes and bounds. As a matter of fact, the word "vague" is an understatement. Many Spanish Grants read, in substance: ". . . comprising sufficient area to pasture 600 (or 6,000, as the case may be) head of cattle"; or, ". . . thence, in a Northerly direction, three cigarets on a burro, to the waters of the Escondido Creek. . . ." I am not trying to be humorous. In the days while Texas was under the dominion of Spain and Mexico, surveying instruments, if any, were crude at best and land was plentiful. Land administration and issuance of title thereto was loosely conducted.

A great portion of Texas was settled by Colonists under authority of the Laws of Coahuila and Texas. Among the more famous Colonists in history, appears the name of Stephen F. Austin. Under the colonization law, titles were generally issued to the persons entitled by the Commissioners appointed for the respective Colonies. But in many cases titles were issued by special Commissioners appointed on the application of the intended party, or by the "alcalde" (Mayor) of the municipality within which the land was situated.

Huge areas of land were obtained by Railroads and Manufacturing Companies. By an act, passed January 30, 1854 any railroad Company chartered by the Legislature of this State, theretofore or thereafter constructing within the limits of the State twenty-five miles or more of railroad was entitled to a grant from the State of sixteen sections of land for every mile of road constructed and put in running order within ten years after the passage of the act. All laws under which lands were granted for the construction of railroads were repealed by the Act of April 22, 1882.

The State of Texas had land in abundance but little money. In order to have land surveyed from the Public Domain for issuance, the State contracted with a civil engineer by name of J. Poitevent, whose name appears as Original Grantee on "alternate sections" of land throughout the State. For each section of land Poitevent "located and surveyed" for the State, the alternate section was surveyed for himself as his fee. In the majority of cases, Mr. Poitevent made sure he was getting his "just due" of 640 acres per section, as the area in his sections usually comprised some 750 to 800 acres.

Many sections of land were never "run out on the ground," but were what is termed "office surveys." That is, they were sketched out and filed in the General Land Office without actually being located on the ground. In later years this of course caused "conflicts" and "vacancies" between adjoining surveys. Conflicts and vacancies always come to light as land becomes valuable, for example, when oil is discovered. Land Commissioner Bascom Giles, in the *Texas Almanac for 1941* makes a rather conservative estimate of 830,000 acres in Conflicts; 1,803,742 acres in Excess, and 1,100,000 acres in River Beds and Vacancies.

IDEA FOR PATENT

In the past decade the use of aerial photographs in the compiling of cadastral-topographic maps has effected a revolution therein, to put it baldly. Major Oil Companies producing in Texas, Louisiana, and Mississippi have adopted the policy of using aerial photographs as a base in the mapping of real property. Development of the essential idea, . . . correlating the legally recorded field note descriptions with actual ground occupancy as evidenced by aerial photographs, has been retarded until now. This, because no clear cut means of presentation had been originated. Heretofore, all actual correlation was done by aerial survey company or oil company engineers in the field, leaving no immediate way for the *user* of the maps to visualize *why* the engineer placed a property line differently than as in the recorded field notes.

In the book, *If You Want to Invent* by H. Dyson Carter, Mr. Carter states: "Everything that has ever been made has first been invented." Mother Necessity delivered to me the idea for a Plat Book Arrangement that would make all desired information immediately ascertainable. Patent No. 2291683 was issued to me on this arrangement and in order to best describe it, an excerpt from the Patent itself follows:

" . . . My invention relates to new and useful improvements in maps. An important object of my invention is to provide a map arrangement by means of which the topographical features and legal records of a given region may be simultaneously graphically and pictorially portrayed, whereby the geographical features and certain desired technical information concerning the features may be brought into intimate association to permit the observer of the map to more readily and realistically ascertain the true nature of the region.

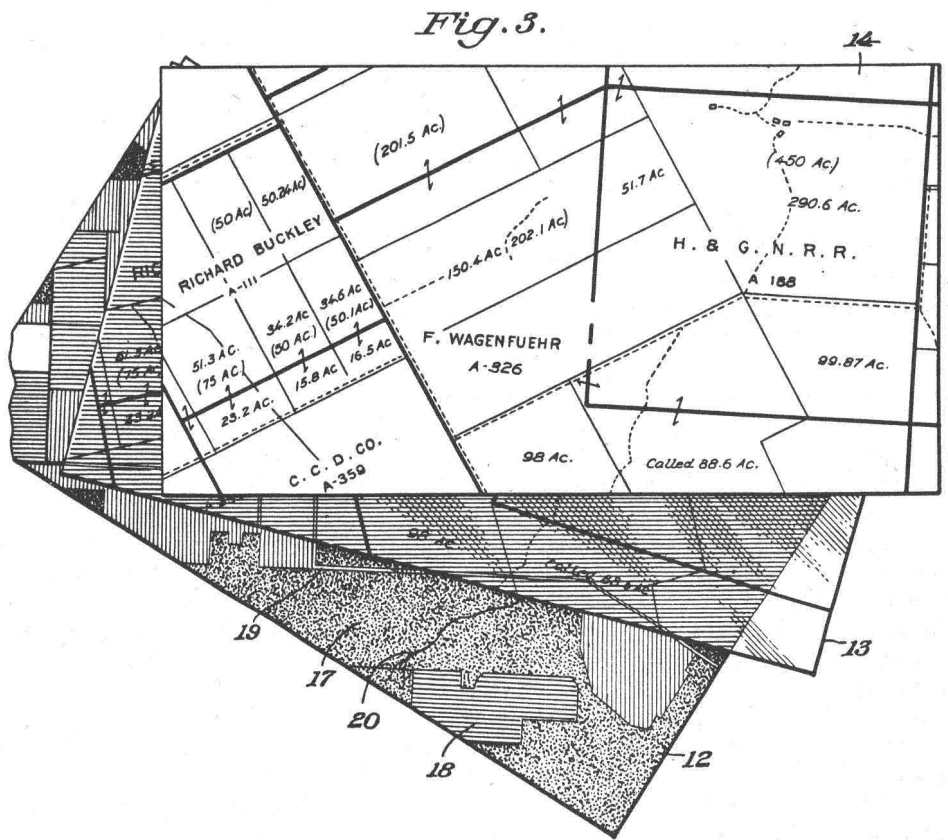
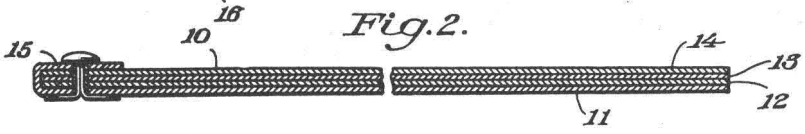
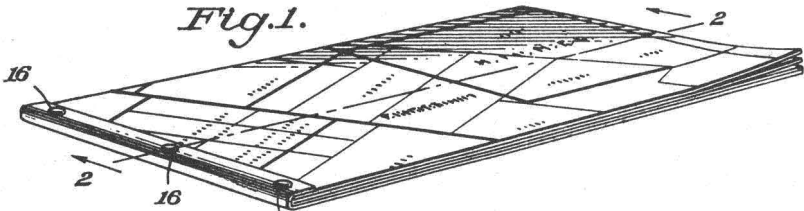
"Another object of my invention is to provide a map of the above-mentioned character which will show everything of legal record and every physical characteristic as it actually exists upon the land, such as the portion of the land in cultivation or covered by forest growth, the actual location of fences, houses, roads, and like information.

"In the drawing, forming a part of this specification and wherein like numerals are employed to designate like parts throughout the same, Fig. 1 is a perspective view of a folder containing a set of maps embodying my invention, Fig. 2 is a longitudinal sectional view taken on the line 2-2 of Fig. 1 and Fig. 3 is a top plan view of the individual sheets comprising the map. In the accompany-

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ing drawing, wherein for the purpose of illustration is shown a preferred embodiment of my invention, the numeral 10 designates a folder embodying my invention, which folder includes a backing or supporting strip 11 and individual sheets of maps 12, 13, and 14. The backing strip 11 and each of the sheets 12, 13, and 14 are arranged in superimposed relation in the order named, each of the sheets and the strip being of equal width and the strip 11 being slightly longer than the sheets. The projecting end 15 of the strip is folded over the adjacent ends of the sheets, as illustrated in Figures 1 and 2, and a plurality of spaced fasteners 16, extend through the turned edge of the strip through the intervening marginal edges of the sheets and through the underlying portion of the strip to securely bind the same in proper association with each other. The lowermost sheet 12 comprises an aerial photograph (mosaic) . . . ; the sheet 13 is superimposed on sheet 12, is transparent and may comprise a film transparency . . . this sheet is delineated to depict legal records such as original fees, grant or surveyed notes, the names of owners of the respective fees and grants, the number of acres contained by each fee or grant, etc. . . . The sheet 14 comprises an index map printed from the same negative from which sheet 13 (the transparency) was printed. Sheet 14 is a conventional blue line cloth print. For convenience all three sheets are divided into seven and one-half minutes of longitude and latitude (grids).

"The present system of mapping a particular region is particularly useful and valuable to City and County, or State Officials. If the entire County or State is photographed uniformly, the transparency may be made from the existing legal records, and discrepancies or inaccuracies in the records will be immediately apparent by reason of the fact that the lines on the transparency representing roads, etc. will not coincide with the actual picture of the same disposed therebeneath. In sections where companies or corporations lease large tracts of lands for conducting drilling or mining operations it will be possible, by using the above described map system, to immediately ascertain discrepancies if they exist. The actual location of the mines and wells as they appear on the photograph may easily be checked against the legal conveyance or grant as indicated on the transparent sheet 13 whereby innumerable difficulties and arguments resulting from inaccuracies in the records will be avoided. . . ."

The following excerpt is from *Aerophotography and Aerosurveying* by James W. Bagley, Lieut. Col. U. S. Army, Retired.

"2. *Map information furnished by aerial photographs.*—Aerial photography furnishes more completely than any other means the information required for making maps. The vertical photograph particularly approaches the ideal for this purpose. It registers in their proper perspective relation all objects and features not obscured or screened by other objects above or near them. Of areas free of trees and structures that cover details, a fair vertical photograph gives practically 100 per cent of all surface information required for a map. It is only the *invisible* items, such as *political boundaries* and *names and details* . . . that are not shown."

Relative to the above excerpt: ". . . It is only the *invisible items*, such as *political boundaries*, etc. . . . that are not shown." I maintain that my Patent "Plat Book Arrangement" does overcome the above *lack of map information* furnished by aerial photographs, through use of a film transparency overlay sheet, in conjunction *with* the aerial photographs. The film transparency overlay, by overlaying the photographs of a given area, precisely, depicts Political Boundaries, Subdivisions, Grant or Survey Lines, Fee Ownership lines, Fee Owners name, acreage, Original Grantee, Survey or Section Number, Abstract Num-

ber (if any), *without impairing or obscuring* any of the detail of culture and conditions actually existing upon the ground, as reflected by the aerial photographs. Thus, we find, that an aerial photograph in itself *is not a complete map*, as it is *lacking* in certain "invisible items" such as "political boundaries, names," subdivisions, etc. My patent complements the aerial photographs, and *with the photographs, is a complete map.*

REMARKS

Many ideas are theoretically sound, but all are not practicable. The past two years have seen my invention reduced to practice, and in actual use, proving itself beyond my fondest expectations. Mr. Frank A. Taylor, County Auditor of Brazoria County, Texas in whose County was installed such a Plat Book Arrangement, states: ". . . Just a word of appreciation to you for a job well done. . . . Personally I could not appreciate the worth of that system at the time, for we had a splendid Plat Book System, and I believed we could get the job done with what we had. But after seeing your work used for six months in conjunction with the other, I am more than pleased, and know that it was a good investment. We have never had the least trouble in establishing the excess you found in the different surveys, and have them on the tax rolls. Controversy over County Lines, survey lines, and ownership lines are easily settled. AAA has found it of greatest help in calculating the exact acreage of all farms, and the Engineers use it constantly in their work. Altogether we have found that you did an excellent job and we are proud now that we made that step to progress and efficiency."

Power Companies also used the arrangement to advantage. Mr. T. J. Penn of the Houston Lighting and Power Company Engineering Department says: ". . . We find that this means of locating lines (power) saves a lot of time as well as money. This is most especially true in rugged or timbered areas. . . ."

To aid them in their Buffalo Bayou \$30,000,000.00 Flood Control Program, the Galveston District U. S. Engineers made use of my arrangement on a 1100 square mile area. War Industry, in the form of the Dow Chemical Co., quick to see the advantages of the overlay arrangement, made use of a large area along the Gulf Coast. The International Boundary Commission were considering the use of the set-up in the detail planning of a construction project (Flood Control) shortly before War was declared, and later stated that it would be delayed probably for the duration.

I wish to take this opportunity to express my thanks to my brother, W. R. Boothe, a member of the Society also, with the Multiplex Section, South Atlantic Division U. S. Engineer Office, located in Atlanta, Georgia. He has been untiring in his efforts of collaboration in connection with the Patent and mapping problems in general.

Curtailement by the War Dept. of commercial sales of aerial photographs for the duration has for the moment halted the spread and use of the invention. I am now at work for the Eighth Service Command Engineer Office helping out as best I can in the War effort. The close of the War should see me back in "harness" either with some Aerial Survey Company or in business for myself, converting County Officials, et al., to the modern way of mapping.