

E. ABERLE.
 MEANS FOR REPRODUCING MAPS AND THE LIKE.
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903,531.

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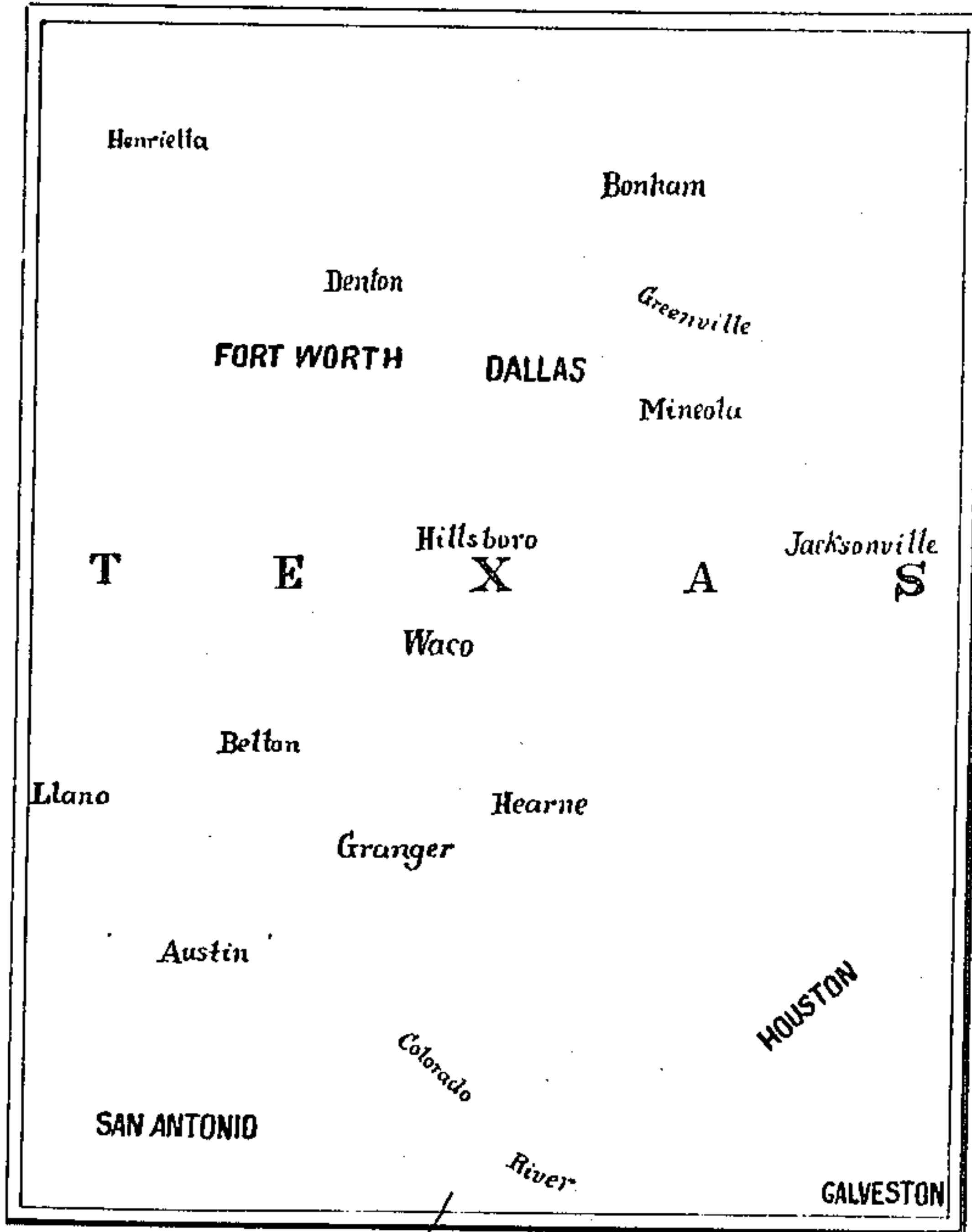


Fig. 1.

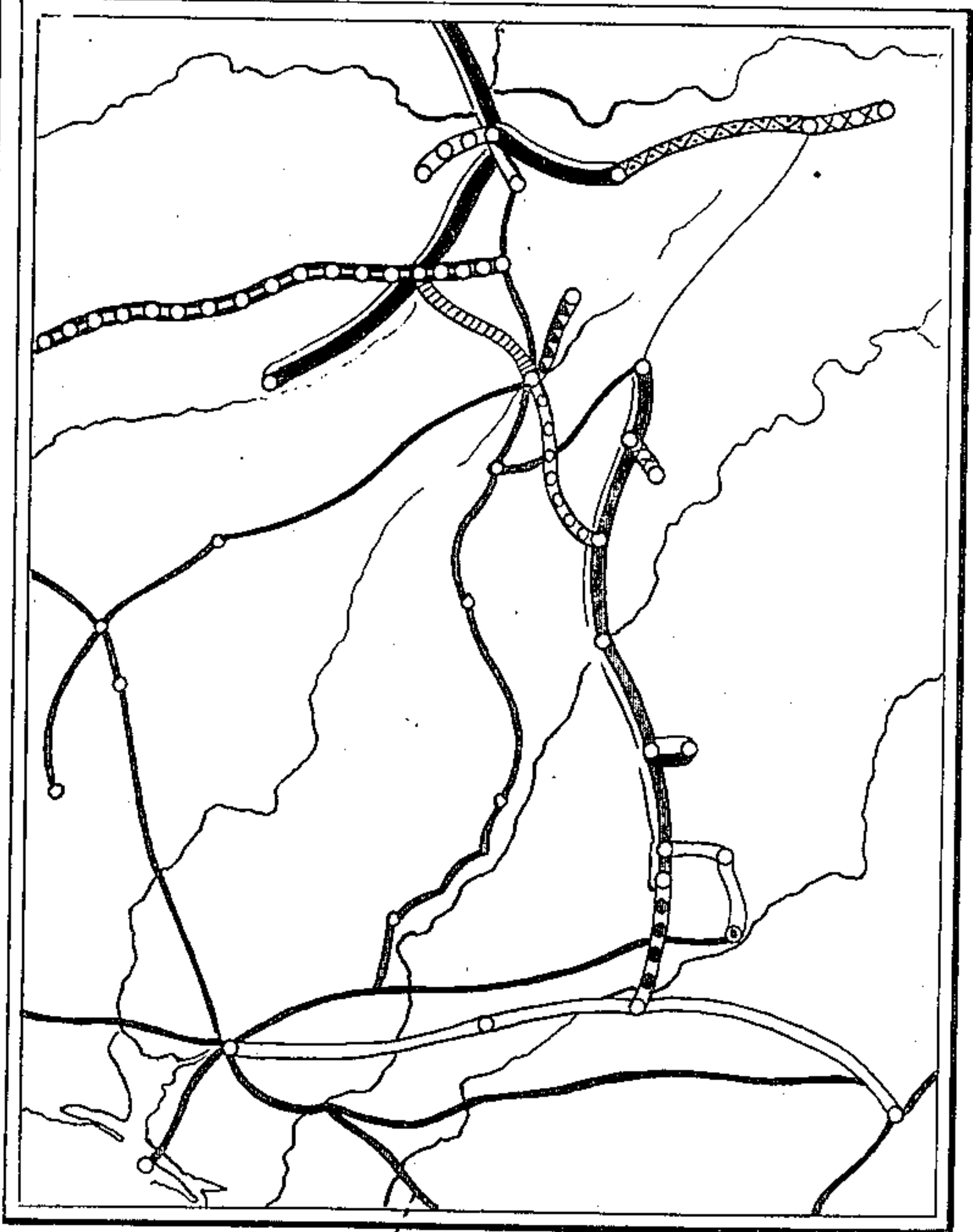
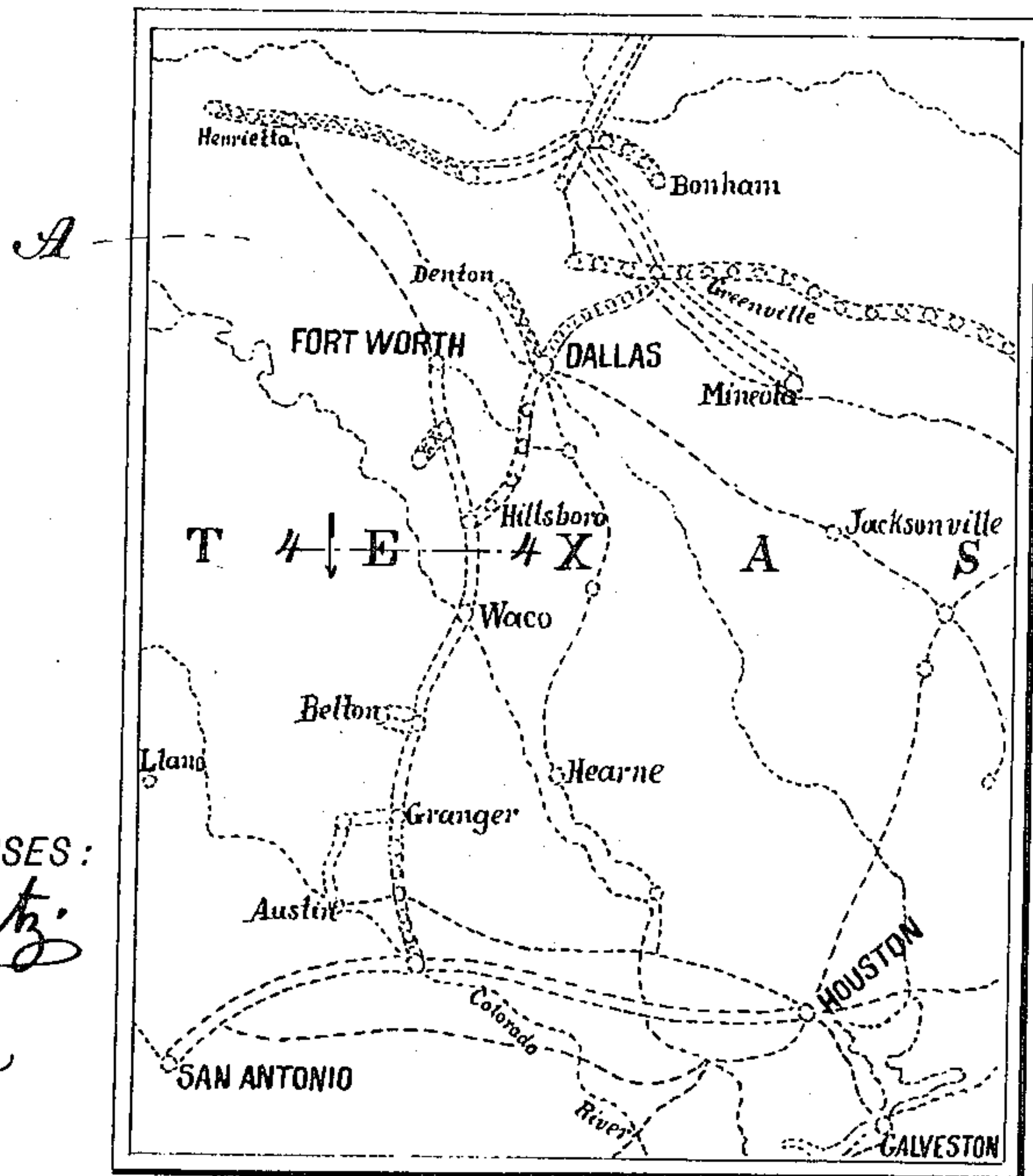


Fig. 2.



Fig. 3.



WITNESSES:
Julius A. Schutz
John Lotka

INVENTOR
Edward Aberle
 BY
Briesen & Knauth
 ATTORNEYS

UNITED STATES PATENT OFFICE.

EDWARD ABERLE, OF NEW YORK, N. Y.

MEANS FOR REPRODUCING MAPS AND THE LIKE.

No. 903,531.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EDWARD ABERLE, a citizen of the United States, and resident of the borough of Brooklyn, county of Kings, city and State of New York, have invented certain new and useful Improvements in Means for Reproducing Maps and the Like, of which the following is a specification.

My invention relates to the production of maps, charts, plans and the like, particularly for reproduction by photography and lithographic or other printing.

The object of my present invention is to provide a means of this character which will present special advantages as to ease of making corrections, clearness of drawing, and perfect registry of the respective portions of the map.

The invention will be fully described hereinafter, and the features of novelty pointed out in the appended claim.

Reference is to be had to the accompanying drawing, in which

Figure 1 is a face view showing one side of the sheet used in my invention; Fig. 2 is a face view of the reverse side of the sheet; Fig. 3 is a face view showing in full lines the matter on the obverse side of the sheet and in dotted lines the matter on the reverse thereof, and Fig. 4 is a partial cross-section on line 4—4 of Fig. 3.

In carrying out my invention I employ a single unitary sheet of material which is sufficiently pervious to light for the purpose hereinafter indicated and preferably I take a sheet of transparent material, such as celluloid. On one face, A, of this said sheet, which I will call the "obverse", I draw, print or produce otherwise certain portions of the map or chart, as for instance the names of States, towns, rivers and other geographical features, and other words. Fig. 1 shows the obverse side A of the sheet with a number of names so produced thereon. These names are placed in their proper relative positions. On the other side of the sheet B, which I will call the "reverse", I produce such other indications as will complete the map when coupled with the indications contained on the face A. Thus in Fig. 2 the reverse contains the coast line and also lines indicating rivers, railroads, the location of towns and certain distinguishing features of such railroads. Fig. 3 represents the appearance of the transparent sheet after the two sides or

faces thereof have been worked upon as above described. The matter on the obverse has been shown in full lines and the matter on the reverse has been indicated in dotted lines. In Figs. 1 and 2 I have shown only the matter which appears on each of the respective sides, so as to avoid confusion. By reference to Figs. 2 and 3 it will be understood that the matter on one face of the sheet is drawn reversed with reference to the appearance such matter has in the completed map. Thus the coast line in the neighborhood of the city of Galveston appears in the lower left hand corner of Fig. 2, while in the completed map this coast line is in the lower right hand corner, as will be seen in Fig. 3. The map having thus been produced on the sheet the lines and other indications are transferred upon stone, metal, or other suitable surface by the action of light according to any approved process of reproduction. In view of this it will be understood that the sheet need not be absolutely transparent, but it will be sufficient if the sheet is pervious to light to a degree allowing the matter on both sides of the sheet to be transferred to a light-sensitive surface at the same time, by one exposure.

The advantages of my present invention are as follows: Inasmuch as various features of the map are on different sides of the sheet, I avoid the crowding of lines and intersection of features which would occur if the entire matter were drawn on the same side of the sheet; the procedure described therefore facilitates the production of clean work. Furthermore should corrections be required they can be made much more readily since matter can be erased from one side of the sheet without affecting the matter on the other side of the sheet; if, however, the entire matter were on one side it will be obvious that in many cases it would be impossible to erase say the name of a locality without at the same time erasing a line indicating a railroad or river or other feature of the map. In addition to this, while one side of the sheet bears the names of localities and of other features, these names remain permanently in proper relation to the corresponding features, as there is no danger of the matter on one side shifting with reference to the matter on the other side. When the sheet is made of perfectly transparent material, as I prefer to have it, the produc-

tion of the map is greatly facilitated as regards the placing of the two portions of the map in their proper relation on the two sides of the sheet.

5 I claim as my invention—

As a means for reproducing maps and the like, an integral sheet of material pervious to light, bearing on its obverse the names of localities, rivers and other geographical features, and on its reverse the representations

of such features in proper relation to the names on the obverse of the sheet.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD ABERLE.

Witnesses:

JOHN LOTKA,

JOHN A. KEHLENBECK.