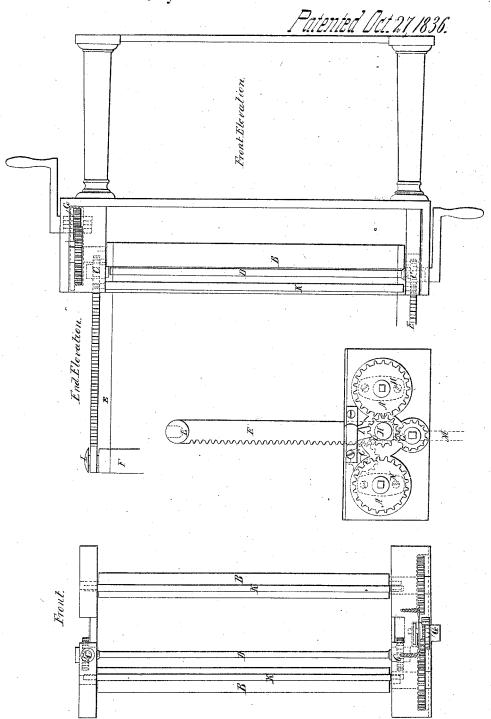
N.K.Lomband.Ir.,

Geographical Delineator



UNITED STATES PATENT OFFICE.

NATHANIEL K. LOMBARD, JR., OF BOSTON, MASSACHUSETTS.

APPARATUS FOR PRESERVING AND EXHIBITING MAPS, CHARTS, AND PRINTS.

Specification of Letters Patent No. 70, dated October 27, 1836.

To all whom it may concern:

Be it known that I, NATHANIEL K. LOMBARD, Jr., of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Machine or Apparatus for Preserving and Exhibiting Maps, Charts, and Prints; and I do hereby declare that the following is a full and exact description.

The machine, or apparatus is composed 10 of six rollers, six gear wheels, racks, and keys, as presented in the annexed drawings.

Figure 1, represents the front elevation of the machinery; 2, the plan of the machinery, and 3, the end elevation of the mathematic chinery.

A, represents two large gear wheels to receive the rollers B, upon which the maps, charts or prints are to be placed.

C, represents two small gear wheels, one 20 at each end to receive the small roller D, by turning which the racks raised from, or lowered into their tubes.

E, represents the racks upon which the roller F, is placed, over which roller the maps or charts are passed to be exhibited.

G, represents the small gear in which the key on the right hand is to be placed. This small gear is connected with the pendulum gear H, which moves the pendulum I, by turning the key which is placed in the small gear G, on the right hand, the action of said gear upon the pendulum gear, moves it to the right and left, turning the large gears A.

B, represents two rollers which extend from one end to the other of the case, the square ends entering into the center of the large gear A, the other ends into holes prepared for the purpose in the case, or table.

D, represents a small roller which extends from one end of the case to the other entering into the small gear E, by which the racks are raised or lowered at pleasure.

F, represents a roller extending from one rack to the other confined by heads L, on each end of it to support the maps when raised for exhibition.

K, represents two small rollers, which extend from one end of the case or table to the other, placed outside the maps or charts to prevent friction.

M, represents a tube to receive the rack when it is lowered into the case.

N, represents two springs screwed upon the wood on either side of gear A, to produce friction upon it.

O, represents spring upon pendulum gear

for the same purpose.

The whole may be placed in a table, desk, book-case or other article of furniture by adding square tubes to receive the racks, so 60 that the whole machinery, and maps may be out of sight. Maps, charts or prints in any number desired may be placed on the rollers B, one end on each roller. A groove is cut in each of said rollers, and the ends of the 65 maps are confined in said grooves by small pieces made to fit into it, or in some other manner. To exhibit the maps the racks on which the roller F, is placed are raised by the key placed in the left hand, turning it 70 toward you, the maps passing over the top of said roller. After the racks are raised, they are confined by small pins, bolts, or some other fastenings prepared for the purpose. The maps are exhibited by turning 75 with the key on the right hand all the rollers. The key may be turned either way which will exhibit such maps or charts as may be desired. To lower the maps into the case the fastening may be removed from the racks 80 by turning the key the opposite way from that required to raise them. The maps are brought close to the rollers by turning the key at the right hand. The rollers, gear, and racks may be made of hard wood, or 85 metal, and may be of any size or length required. For the use of ships when it is desired to exhibit the charts on a table, or flat surface the racks, and rollers, and gear belonging to it may be omitted, placing the 90 charts or rollers B, and passing them around rollers K, placed at any distance from each other that may be desired.

What I claim as my invention, and desire to secure by Letters Patent is—

The combination and application of the above described apparatus to the purposes aforesaid.

NATHL. K. LOMBARD, JR.

Witnesses:

Joseph True, Justin Field.