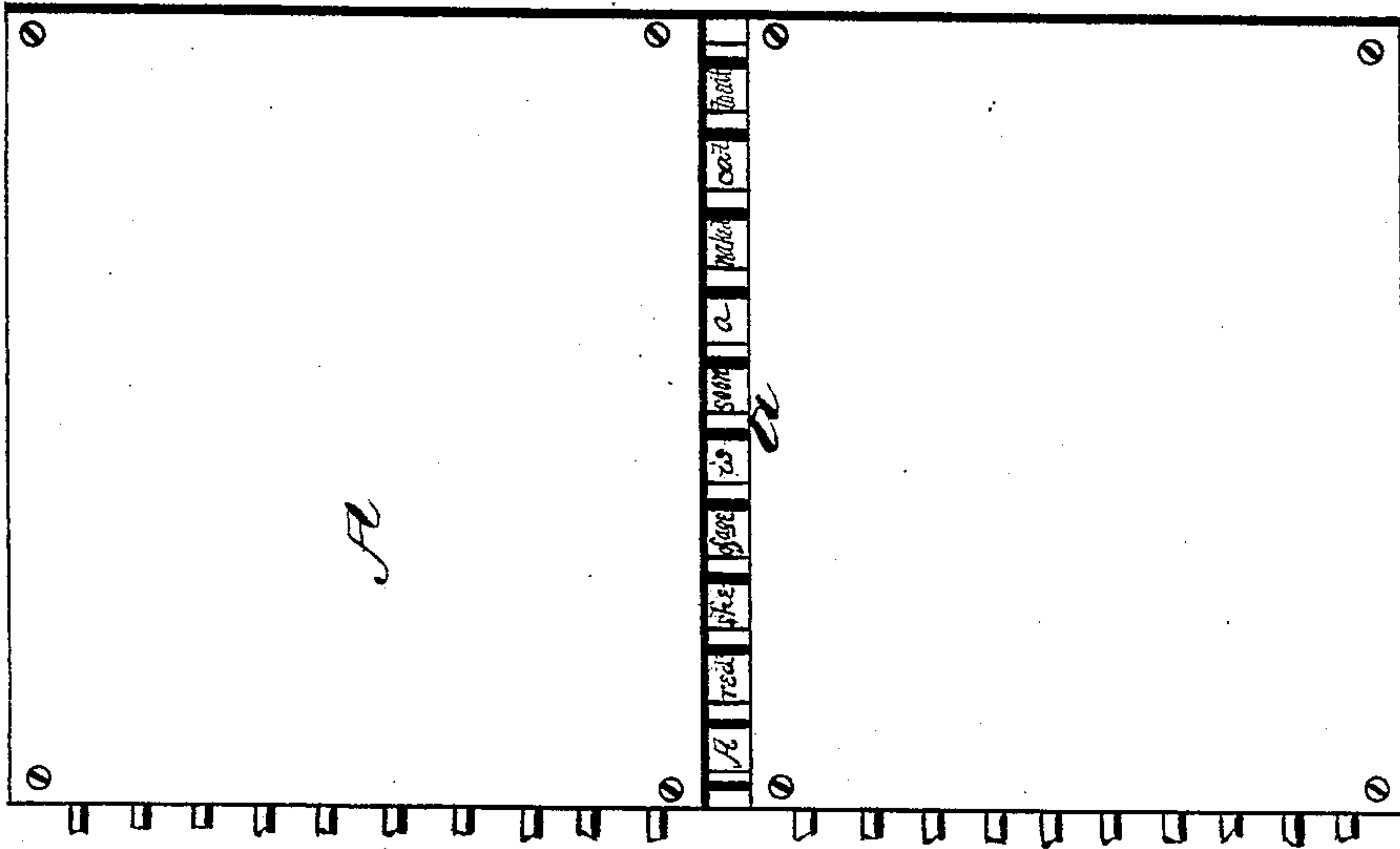


C. CORNING.  
SCHOOL-CHARTS.

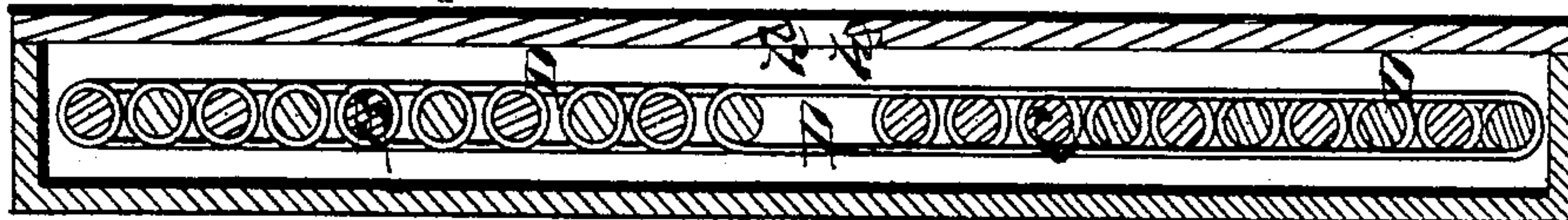
No. 195,348.

Patented Sept. 18, 1877.

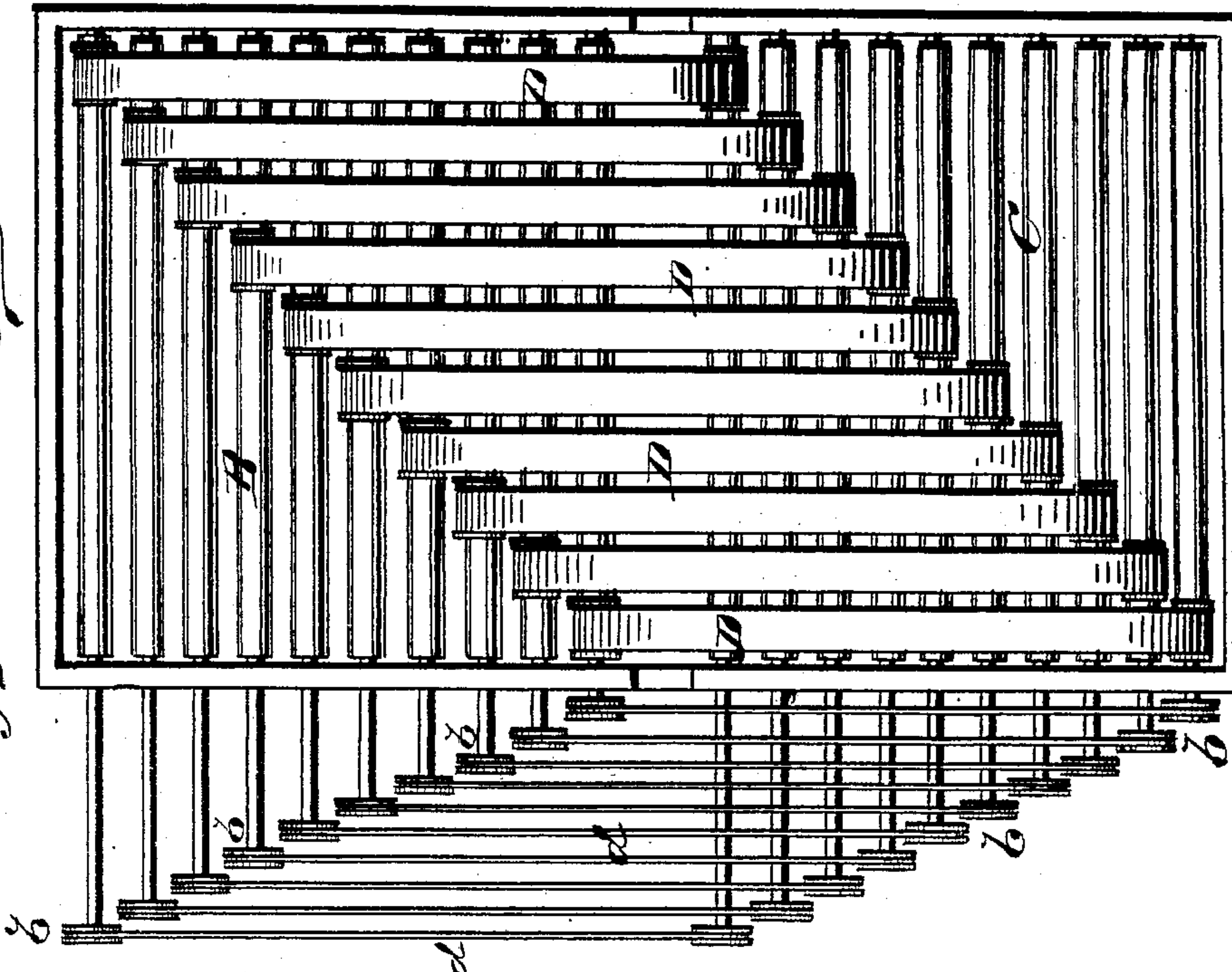
*Fig. 3.*



*Fig. 2.*



*Fig. 1.*



WITNESSES

*H. Bates*  
*George E. Upham*

INVENTOR.

*Cyrus Corning*  
*Gilmore, Smith & Co.*

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

CYRUS CORNING, OF LAWRENCE, KANSAS, ASSIGNOR OF ONE-HALF HIS  
RIGHT TO AQUILA J. REID, OF SAME PLACE.

## IMPROVEMENT IN SCHOOL-CHARTS.

Specification forming part of Letters Patent No. **195,348**, dated September 18, 1877; application filed  
June 9, 1877.

*To all whom it may concern:*

Be it known that I, CYRUS CORNING, of Lawrence, in the county of Douglas and State of Kansas, have invented a new and valuable Improvement in School-Charts; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a front view of my school-chart with the covering removed; Fig. 2, a transverse vertical sectional view, and Fig. 3 a front view of the same.

The nature of my invention consists in the construction and arrangement of a school-chart intended for use in primary and grammar schools, as will be hereinafter more fully set forth.

The annexed drawing, to which reference is made, fully illustrates my invention.

A represents a case, of any suitable dimensions, having a horizontal opening, *a*, centrally across its face. Within this case are arranged two series of rollers, B and C, one series above and the other below the central opening *a*. The journals of these rollers project through one side of the case and are provided with pulleys *b b*, as shown. These pulleys are connected by cords *d d* in such a manner that the first or top roller of the upper series will be connected with the top roller of the lower series, and so on to the bottom rollers of each series. D D represent endless belts passed around the pairs of rollers thus connected—that is, one belt for each pair of rollers.

In a full-sized chart I propose to have eleven pairs of rollers and eleven belts; but I do not confine myself to any specific number, as that may be varied to suit circumstances.

On the first belt to the left is affixed, by

printing or otherwise, the words "The," "An," and "A," known as the "articles" in grammar. On the next belt are, in like manner, affixed a number of adjectives, and then follow, in rotation, nouns, phrases, auxiliary verbs, verbs, adverbs, and again the article, adjective, noun, and phrase.

By operating the different rollers an indefinite number of sentences can thus be formed applicable both to primary schools and grammar classes.

In the hands of a skillful teacher this chart can almost take the place of the common school-books.

In the opening *a* on the face of the case A are fastened strips or beads *h h*, which form grooves behind them. These admit of slides containing or showing capital letters, being moved inward to take the place of the article on the first place when the teacher desires to have a sentence commence with some other word.

The beads or strips *h h* may be made of separate pieces from the face of the casing A, and fastened thereto, or each may be formed in one piece with the half-face of the case by beveling the latter on each side of the central slot, so as to form the beads or strips, as seen in Fig. 2 of the drawing.

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

A school-chart consisting of a case, A, with central opening *a*, having strips *h*, two series of rollers, B C, connected in pairs, as described, and the endless belts D, all constructed substantially as and for the purposes set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

CYRUS CORNING.

Witnesses:

MORITZ HARTTMANN,  
WILLIAM H. CARRUTH.