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EBERHARD FABER PENCILS

HOW THEY ARE MADE



GRAND PRIZE

PANAMA-PACIFIC
INTERNATIONAL
EXPOSITION



† 686 863 3.

Industribiblioteket

Grp: *130h* **Forfatter:**

Titel: *E. Fabers pencils*

Bind: **Udgave:** **Trykkaar:**

Industribiblioteket

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How

Eberhard Faber Pencils

Are Made

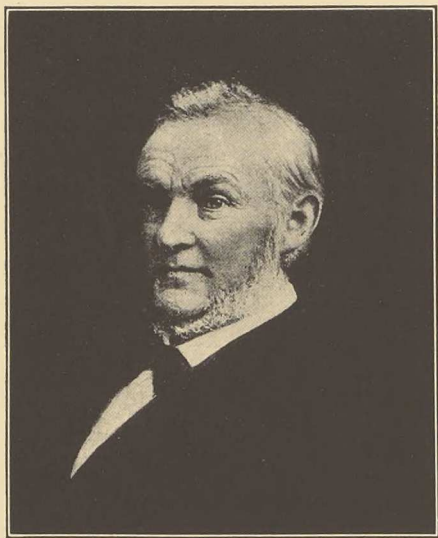


The Oldest Pencil Factory in America

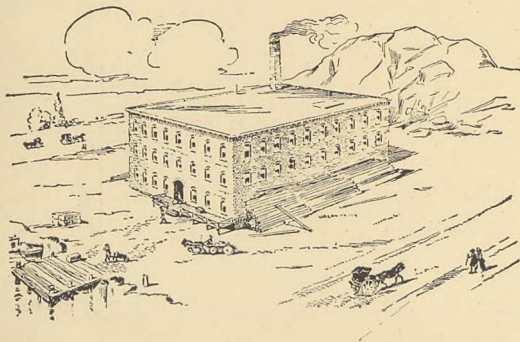
EBERHARD FABER

37 Greenpoint Avenue

Brooklyn, N. Y.



Eberhard Faber
Founder of the House of Eberhard Faber



The Original Factory

Historical

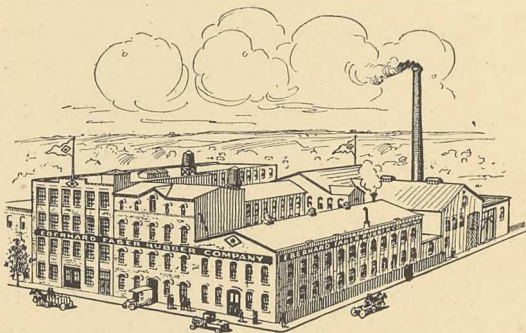
EBERHARD FABER, the father of the present firm members, Eberhard and Lothar W. Faber, was born in Germany in 1822. After completing a law course at the University of Erlangen, Bavaria, he entered the pencil business, and in 1849 came to New York where he established the house of Eberhard Faber, with store and offices at 133 William Street.

For many years he was the largest exporter of cedar wood, supplying from large timber tracts which he controlled in Florida, most of the European pencil manufacturers. He died in New York, March 2, 1879.

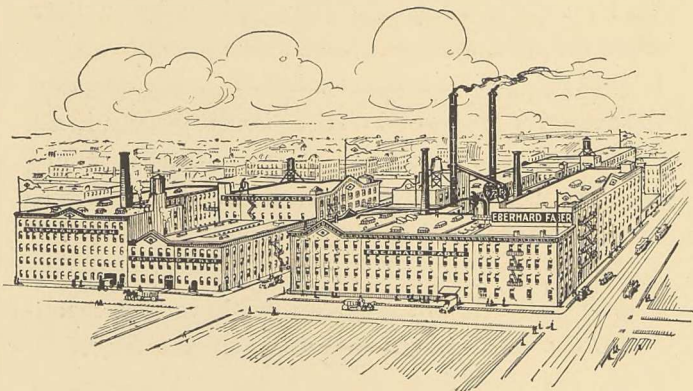
In 1861 a factory was erected on 42nd Street at the East River. This was destroyed by fire in 1872, when the plant was transferred to the present location in Brooklyn, where it has since continuously operated. An extensive group of buildings, twenty-seven in all, covering a good part of two city blocks, has sprung up about the original quarters, until the old factory home is scarcely to be recognized.

Rubber Bands and Erasers, which are an important feature of the Eberhard Faber line, have been manufactured since 1858 at our factory in Newark, N. J. From the first these goods assumed a supremacy which has always been maintained and their recognition as standard is universal.

INDUSTRY
EBERHARD FABER : NEW YORK



Rubber Band and Eraser Factory
Newark, N. J.



Lead Pencil and Penholder Factory and General Offices
Brooklyn, New York



How the Pencil is Made

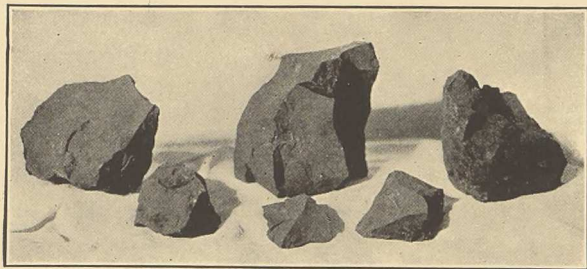
The Material

Graphite, from which the lead is formed, is found in varying degrees of purity in many parts of the world. The finest grades come from Ceylon and Mexico. From



Crude Graphite

the mines it is taken to the mills where it is refined to free it of all foreign material, and in the process is reduced to an impalpable powder of absolute purity.



Pencil Maker's Clay

Clay of a very fine quality is another essential in lead making. This is processed in much the same manner as the graphite to purify it. The clay acts as a



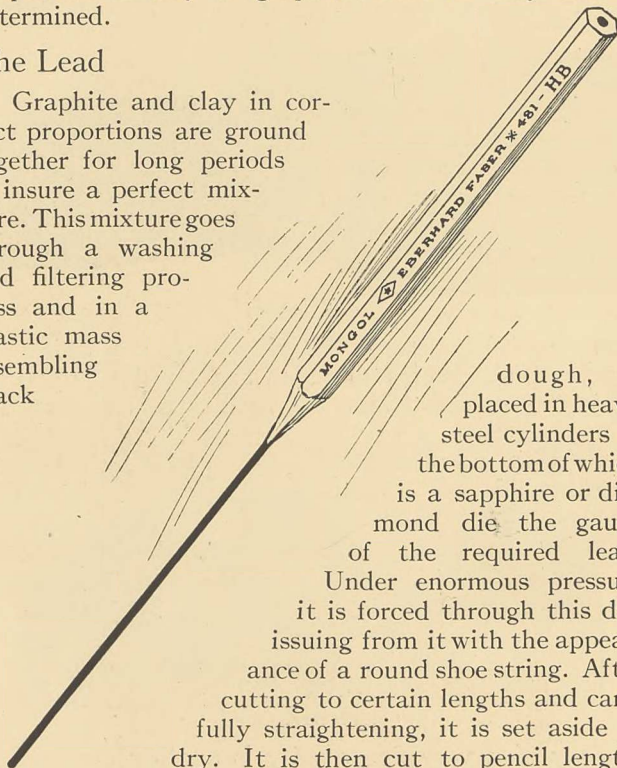
binding medium for the graphite, and is used also to produce the desired degree of hardness. The greater the proportion of clay the firmer the lead. Where a lead is made in fifteen degrees of hardness, such as in our "Van Dyke" drawing pencil, it is obvious that the proportion of clay to graphite must be very exactly determined.

The Lead

Graphite and clay in correct proportions are ground together for long periods to insure a perfect mixture. This mixture goes through a washing and filtering process and in a plastic mass resembling black

dough, is placed in heavy steel cylinders in the bottom of which is a sapphire or diamond die the gauge of the required lead.

Under enormous pressure it is forced through this die, issuing from it with the appearance of a round shoe string. After cutting to certain lengths and carefully straightening, it is set aside to dry. It is then cut to pencil length, placed in crucibles and subjected to a heat of over 2,000 degrees. The heating or burning process tempers and



toughens the lead and it is also a factor in determining the degree of hardness.

The Wood

The Red Cedar of the Southern States (*Juniperus Virginiana*) is the finest in the world for pencil making. Florida, Tennessee, Alabama and Georgia contribute most of the supply, while some other states furnish a small proportion. The clear, straight grain of the fragrant cedar and its unmatched cutting qualities are the properties that cause it to excel as a pencil wood.

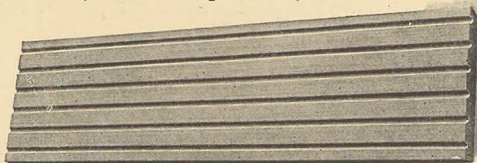
The cedar, after sawing, is cut into so-called slats about the length of a pencil, the width of six, and in thickness a little more than half a pencil.

Before working, the wood must be thoroughly seasoned and kiln-dried, in order that the rather large percentage of oil natural to it may be eliminated.



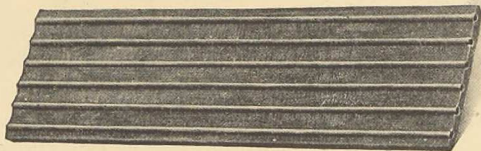
Grooving

The first operation is that of grooving. The slat passes through a machine with rotary cutters which cut six grooves for the lead, at the same time planing the slat so that when two are brought together with the lead between, there is a perfect joint.

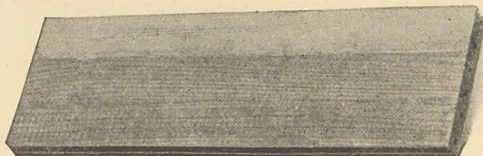


Leading

The grooved slat is taken by deft-fingered girls and the lead sticks rapidly laid in the grooves. Another takes a similar slat, which has been given a coating of glue in an automatic machine, and fits this over the slat containing the leads.

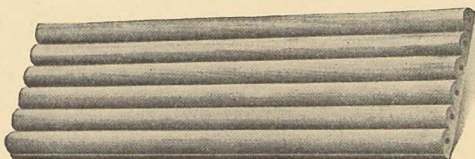


These are then placed in clamps under pressure and laid aside to dry. When the glue has thoroughly set, they are taken out and are then ready for shaping.

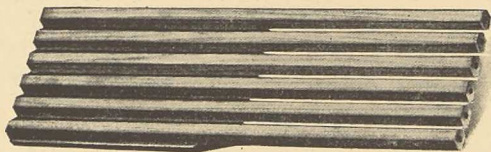
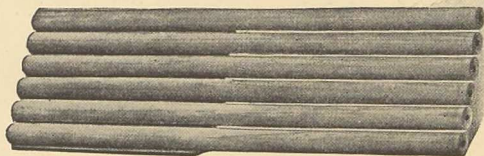


Shaping

The shaping or molding is done by passing the lead filled slats under high speed revolving knives or cutters which remove the surplus cedar, leaving six pencils half shaped and held together by a thin bond of the wood.



By reversing the position and again passing under the cutters, the six pencils are fully shaped and for all practical purposes are ready for use.



Sandpapering is the next operation. This is done in automatic machines, using a very fine paper which leaves a surface sufficiently smooth for the varnish to be effectively applied.



Varnishing

After sandpapering, the pencils are taken to the varnish machines where they are given a thin coat of color, then slowly carried on an endless belt through a steam-heated compartment and deposited into a receptacle, dried and ready for another trip. This operation is repeated from six to ten times, thus insuring a fine, glossy coat.

Another method, used largely on odd shaped pencils such as conic, etc., and for penholder handles, is that of dipping. The pencils are held by the ends in frames and immersed in deep pans of varnish from which they are very slowly withdrawn. A rather heavy coat with an enameled effect is the result of this treatment.

A third method is that of hand polishing. This, on account of its high cost, is resorted to for the finest grades only. The color is applied and the pencils rapidly though lightly rubbed. The repeated rubbing and applications of color produce a lustre not obtainable in any other way.

Sizing

The varnishing process leaves the pencil with an accumulation of color on the ends. This is removed by passing between revolving, sandpaper-covered drums, which not only clean the ends of the pencils, but also makes them uniform in length, or, in factory language, "sizes" them.

Heading

The pencil ends are subjected to a further trimming by being brought in contact with a rapidly revolving circular knife with razor-like edge, which literally shaves them clean and smooth.



Stamping

The pencil is now ready for stamping. The better grades are stamped with gold or silver leaf. The leaf is laid on a leather-covered pad which is enclosed in a glass case open only toward the operative. This is to prevent the leaf being disturbed by air currents. With a keen, long blade knife the leaf is rapidly cut into strips the width of the stamp. These strips are then laid on the pencil and passed on to the stamping machines. A steel die, cut with the required imprint and heated by gas or electricity, is impressed over the leaf and wherever the die touches, the leaf adheres. The excess leaf is then wiped away, leaving the clearly defined lettering.

After stamping, the untipped styles of pencils are given a final polishing and examination and are then ready to be put up in dozen packages or boxes and placed in stock.

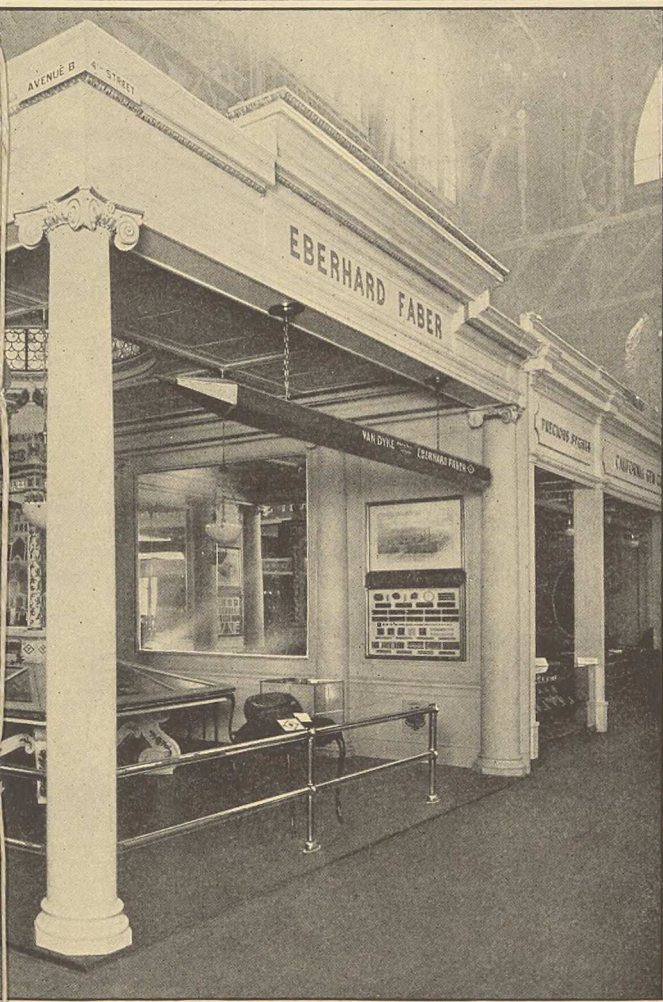


In this country the popular demand is for a pencil with metal tip and rubber. These tips are shaped from sheet brass or bronze metal and are therefore seamless. A cup-like piece of the metal is punched out and through a series of operations is drawn or stretched until a tube is formed the diameter of the pencil tip. After the tips are cut, they are impressed with different designs and nickel-plated, oxidized or finished in gilt. Some of these designs, such as that of the "Mongol" tip, are registered in the U. S. Patent Office and are very valuable as a trade-mark.





Eberhard Faber Exhibit,
(See page 19)



VAN DYKE DRAWING PENCIL EBERHARD FABER * 600



Varied Industries Building
(for description)

Inspection

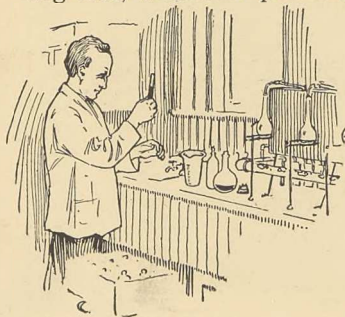
To make certain that none but perfect goods will reach the consumer, they are carefully examined at different stages of completion by trained inspectors who quickly discover any possible imperfection. Slight defects which, although not affecting the usefulness of the pencil, might detract from its appearance are sufficient cause for rejection.

An up-to-date laboratory with competent and experienced chemists is maintained.

Here all ingredients are carefully tested and analyzed before use, and if they do not measure up to recognized standards they are not accepted. Particular attention is given to pencil leads of all kinds—black, colored and copying—during the process of manufacture, when they are closely scrutinized to insure absolute adherence to formulæ.

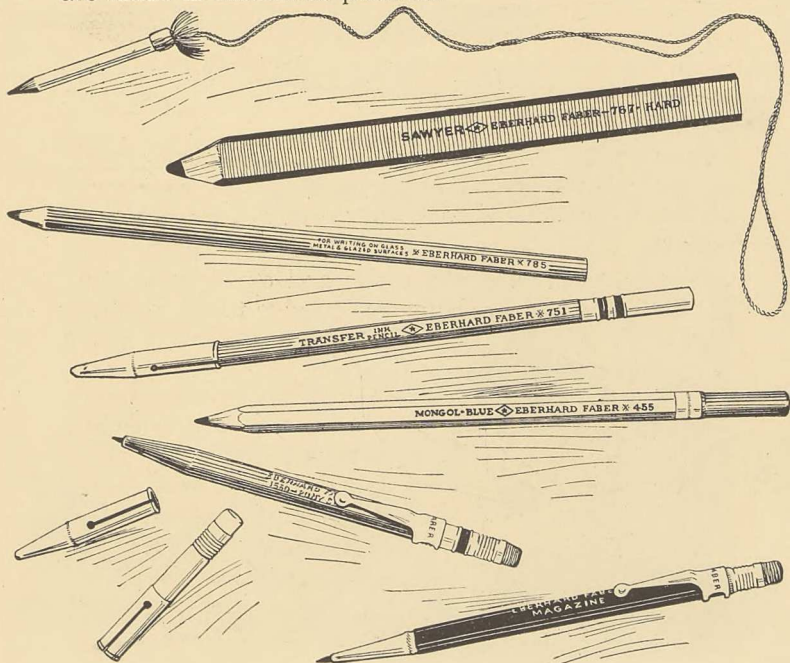
Of such vital importance to the pencil is the lead, that care of the most painstaking kind is expended in developing and, whenever possible, improving its quality.

The three essentials—smoothness, toughness and texture—are kept ever in mind, and to the fact that the lead in Eberhard Faber Pencils is distinguished by an unusual refinement of these qualities, must be attributed the splendid reputation of these goods.



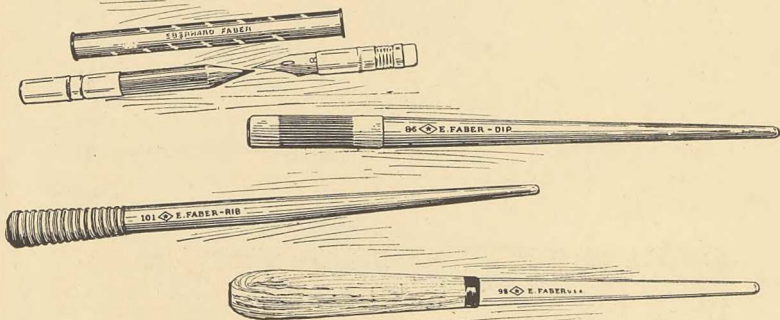
EBERHARD FABER : NEW YORK

Eberhard Faber Pencils are produced in hundreds of styles, in an unending variety of finishes. Large numbers have been designed for special purposes, such as the dainty little program pencils for tally and dance cards; broad, flat pencils for the carpenter; skin marking pencils for the surgeon; glass marking for the chemist; weatherproof for the nurseryman, and a large line of indelible or copying, colored and pocket pencils of many shapes, etc. Metal attachments, such as point protectors, clips, etc., are a feature of many pencils. Magazine pencils with four leads in each are a recent development and are made in numerous patterns.



EBERHARD FABER : NEW YORK

Aside from the items mentioned on the previous page, there are combination pen and pencil cases of various designs, and a most complete assortment of penholders manufactured. The penholders range from the common school type to the fine commercial styles with tips of cork, hard and soft rubber, and include a number of all-wood in many different finishes.



The packing of Eberhard Faber goods is given much attention. Cards, boxes, easels and displays of many attractive designs are employed to give to the products



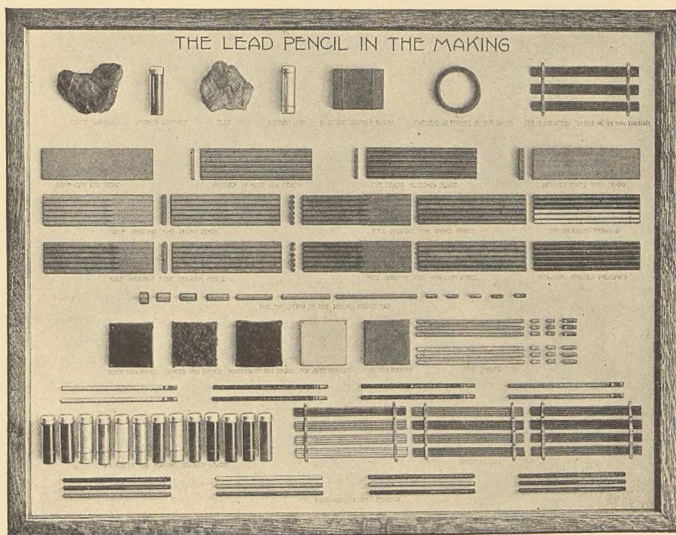
EBERHARD FABER : NEW YORK

a setting worthy of them. Many of these are of a distinctive character and show the pencils, etc., to the best possible advantage.

The Eberhard Faber factories give employment to 1,000 people.

Various agencies for the welfare of our employees have been introduced and "safety first" not only is emphasized throughout the works, but every precaution is taken to insure it. Machines are equipped with most approved devices for the protection of the operatives.

The health of the employees is under the surveillance of a competent physician who visits the plant daily, and who with the aid of a well equipped dispensary and attendant nurse is ready to give any necessary medical treatment.



EBERHARD FABER : NEW YORK

The Grand Prize

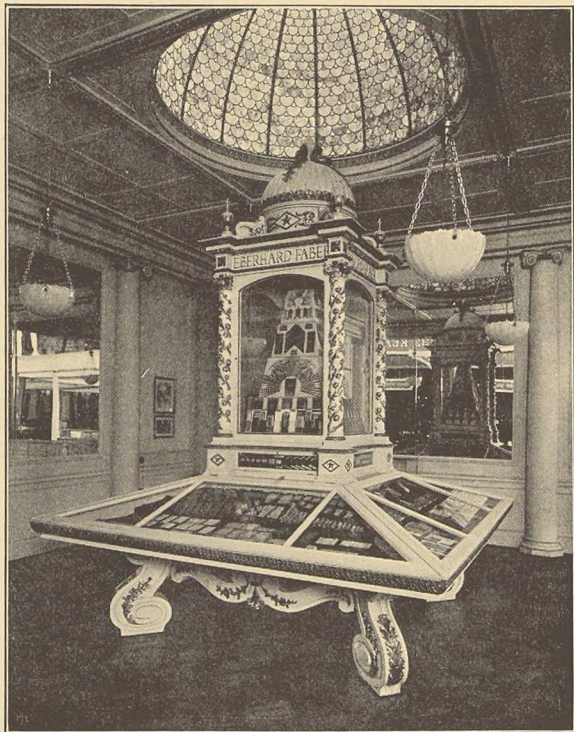
and Two Gold Medals

"The Highest Honors Possible to Confer"

Were Awarded to

Eberhard Faber

For Lead Pencils, Penholders, Rubber Bands and Erasers



Central Display Cabinet, Eberhard Faber Exhibit
Panama-Pacific Exposition, Varied Industries Building



The Eberhard Faber Exhibit

As an expression of the highest development of the lead pencil, penholder, rubber band and rubber eraser industries, the Eberhard Faber exhibit in the Varied Industries Building of the Panama-Pacific Exposition, leaves nothing to be desired.

Here is shown a complete line of these goods in all its diversity of styles and with the various classes represented in detail. The exhibit is comprised only of such patterns as are regularly carried in stock.

In order that the public may understand something of the processes of manufacture, specimens of crude material, including a section of a Southern red cedar tree, a large biscuit of Para rubber just as received from the rubber forests of Brazil, and lumps of graphite and clay as mined, are displayed. Graphic charts show each of the materials in different stages of manufacture, so that the observer may trace the goods from the crude material through to the finished product. These charts are self-explanatory, as the mounted specimens detail each step of manufacture.

In the central cabinet of the exhibit will be found not only single samples of the goods, but also many of the containers of different types in which the goods are offered to the trade.

Rubber bands, from the tiny ticket rings three-eighths of an inch in diameter, to the mammoth package bands measuring nine inches long and five-eighths of an inch wide, in both the regular grey and the red or ruby rubber, are on view.



Rubber Erasers in all styles, shapes and sizes and for every conceivable purpose are shown.

These include the "Van Dyke," a soft, flexible, pink rubber, matchless for erasing pencil marks. And "Kneaded" rubber, a plastic compound which the user may shape to suit his convenience and which is preferred by artists for cleaning drawings, etc.

There are the well known school styles, such as No. 1025 "F," a deep red block rubber, and the No. 812 "Rouge," of narrow, single bevel shape, both of which in the small sizes, such as 80 to the pound, are extensively used in schools throughout the country.

Mention should be made also of those other popular brands such as the "Cabinet," "Ideal," "Cerise," "Amazon," "Ruby," and "Emerald." These are all pencil rubbers. The last two have for years been the leading commercial erasers on the market, a place long ago earned and sustained in spite of any number of imitations.

Some of these rubbers, the "Van Dyke" for instance, are made in as many as ten sizes, from the bulky four to the pound to the small size No. 80. Others are made in the diminutive No. 120.

In ink and pencil erasers the "Union," half ink and half pencil of the double bevel pattern, is the best known.

Typewriters' Erasers embrace the "Ten-Eighty" circular, the "Comet," circular shape with tail-like brush, and the long, double bevel such as No. 102, which is made in three sizes.

Then there are Ink Erasers of various kinds and large, oblong blocks of soft rubber for library use to restore the soiled pages of books; electrotipers' finishing rubber; "Polita" steel polish, the rapid rust remover, etc.

These with others too numerous to mention are displayed in original packages.



BY INVITATION MEMBER OF
RICE LEADERS OF THE WORLD ASSOCIATION

EBERHARD FABER
-MONGOL-
THE PERFECT PENCIL

Finest Electric Display in the World (65 FT. HIGH - 110 FT. LONG)
MARKET STREET (OPPOSITE PALACE HOTEL)
SAN FRANCISCO, CALIFORNIA, 1915

COPYRIGHT 1915, ELWOOD E. RICE

Rice Leaders of the World Association

Electric Display

San Francisco
(Opposite Palace Hotel)

This mammoth electric display, located on Market Street, opposite the Palace Hotel, is one of the largest and most unique ever designed. In height it equals four stories of an ordinary building. There are more than 100 miles of wire used for the connections, and the lighting is dependent upon over 100,000 candle power electric bulbs. There are over 75,000 electrical connections with 2857 electric switches. These operate over 2500 flashes per minute.

These few statistics will give some idea of the magnitude of this display.



THE OLDEST PENCIL FACTORY IN AMERICA

Lead pencils, our chief product, occupy more space, and are more prominently displayed than our other goods.

The "Van Dyke" Drawing Pencil (made with lead in 15 degrees of hardness) and the "Mongol" No. 482, the most popular high grade commercial pencil of the day, lead off in this line. These are followed by a host of others with and without metal tips and rubbers, in round and hexagon shapes, and in a numberless variety of colors. Such brands as the "Hexaround," "Royal," "Empress," "Rembrandt," "Gloria," "Ray," "Columbia," "Dot," "Commerce," etc., will be readily recognized as old acquaintances. School pencils are shown in many patterns with lead of different calibres, and with the pencil shaft in some cases very large, to suit the Kindergarten classes.

Stenographers' and copying pencils, colored pencils with lead in as many as fifteen colors, carpenters' and glass-marking pencils, weatherproof, election, program, slate, pocket and the new magazine, are all displayed in profusion. Pencil point protectors, combination pen and pencil cases, lumber crayons, etc., are all incorporated in the pencil section.

Penholders run the gamut from the cheaper grades with metal tips, on through the all-wood styles with their silk-like finish in different colors, to those with tips of hard rubber, cork, soft rubber, etc., in all of the shapes, sizes and styles with which the public is so familiar.

There will be found on exhibition several very fine pencil drawings by Carl Hassmann, which were done exclusively with the "Mongol," and which show the great possibilities in the lead quality of this pencil.

It might be mentioned that the handsome ivory and gold cabinet in which the main display is exhibited, was designed by the late John M. Carrère, the well known



EBERHARD FABER : NEW YORK

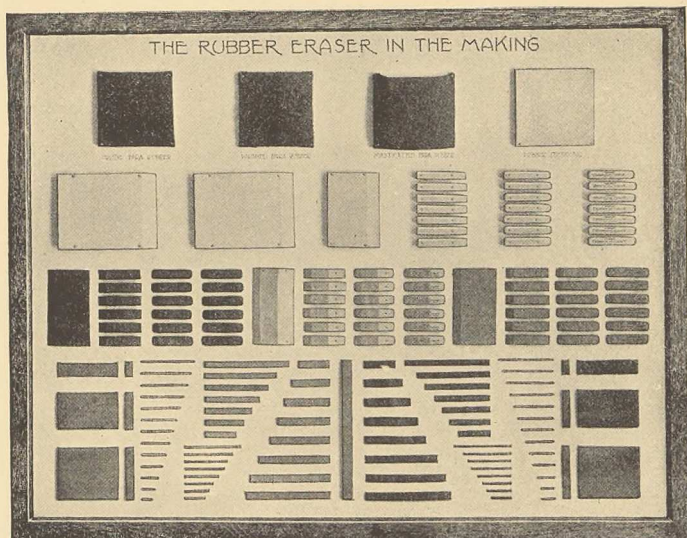
architect of New York. Its 14 feet of height are hardly appreciated because of its symmetry.

The booth is of classic simplicity in design. Eight Ionic columns support the roof, in the center of which has been set a handsome stained glass dome ten feet in diameter, from which is diffused a soft light of most pleasing effect.

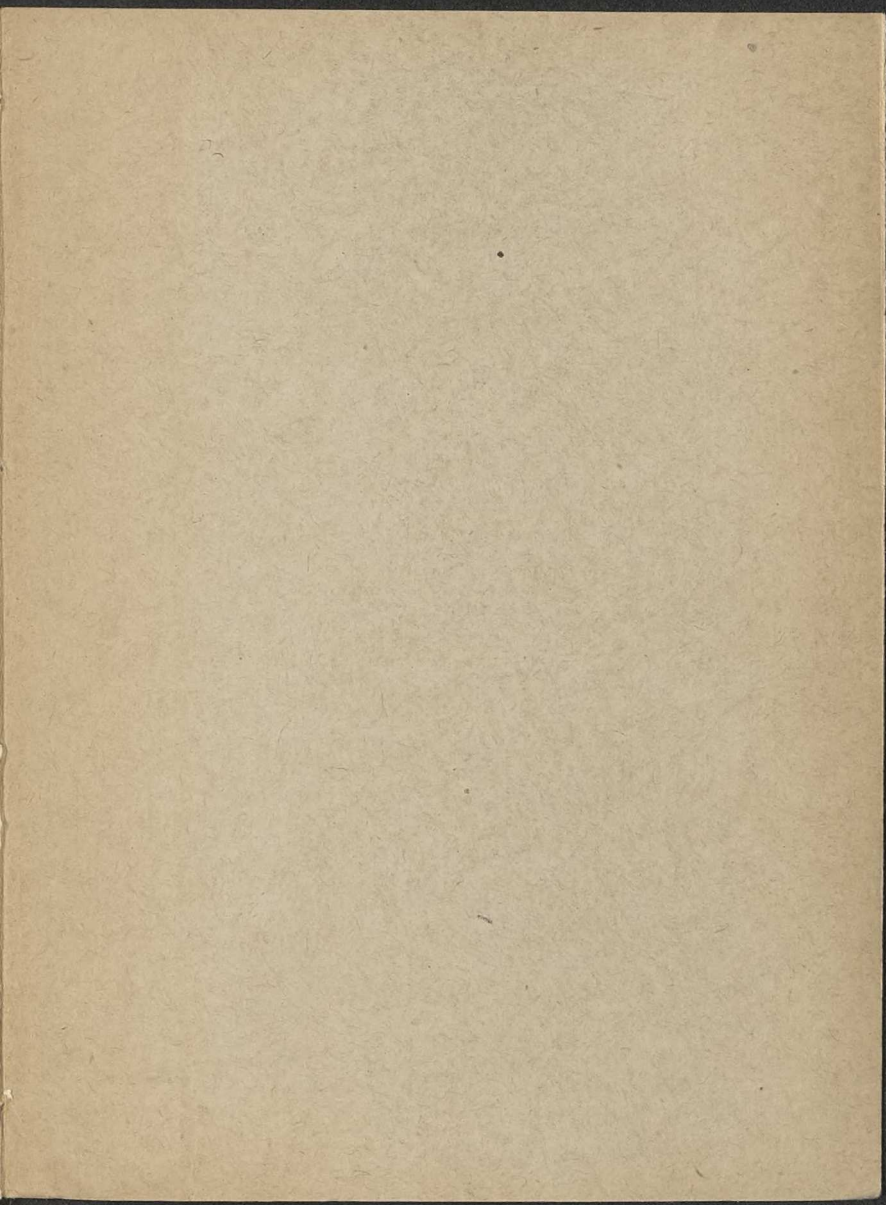
The side walls are relieved by mirrors of French plate, each nine feet square. The lively reflections of the display in all of its attractive colorings greatly enhance the general appearance of the exhibit.

The booth is finished in French grey, the decorative moldings being over-laid with gold leaf.

Fac-similes of the "Van Dyke" and "Mongol" pencils, worthy signs for the pencil maker, each about twenty feet in length, are suspended between the columns.



DONE BY THE
ROBERT L.
STILLSON
COMPANY
NEW YORK



VAN DYKE DRAWING PENCILS

"OUR BEST MAKE"

GOLD MEDAL

PANAMA-PACIFIC INTERNATIONAL EXPOSITION



HEXAGON. YELLOW POLISH. 15 DEGREES OF HARDNESS

VAN DYKE RUBBER ERASERS

BEST FOR PENCIL

GOLD MEDAL

PANAMA-PACIFIC INTERNATIONAL EXPOSITION

SOFT, PINK
EFFICIENT

10 SIZES

