

Marbling Powder

Absolutely Pure

MARBLING BOOKS.
The Slow Old Process by Which the Fancy Edges Are Made.

Almost ever since the first books were made the fashion of marbling the edges of many of them has been in vogue. It used to be, however, that only the most expensive volumes—those bound in full calf and elaborately lettered—had their edges thus garnished, but now such finishing is left, for the most part, for ledgers, daybooks and other blank books intended for business use.

Through long before gilt edges were thought of the ornamenting of the plain white edges of books to imitate marble was popular, there has been little or no change in the process since its first introduction.

It is generally supposed that all such details have come under the stamp of the bookmaker's art until there is nothing left in them to remind one of their original nature, but not with marbling. As time has gone on the popularity of this method of embellishing paper has grown less. Consequently there has been no need to devise means by which it could be more speedily done.

There have been some improvements in the original methods, but most bookbinders still stick to the old way as good enough.

Instead of books whizzing through machinery one after another and taking on their marbled edges in some mysterious manner, as might be supposed, each book is taken by hand separately and the leaves dipped, tightly held together, into the liquid that marks their edges with the many colored little veins, before the covers are put on.

A trough about two inches deep is filled with gum water, on the surface of which various colored pigments have been thrown and disposed in various forms with a comb and coarse wire teeth.

The case of the book is ranged along the sides of the trough, and from them long, soft hairbrushes that are held over the water are allowed to drip. One color is put down right over the other, and the marbling is carried through them. The books are extremely dextrously dipped into the water, and the colors adhering to their edges are set by dashing cold water over them. But one of the three edges at a time can be established by observation, some years ago the writer and a scientific friend measured off on the shore of a large western river a line exactly three miles long, and each took a station at opposite ends of the line. The object was to establish by observation, the signals, the time a flock of wild ducks took in passing up or down the river, near the stations.

During three hours on the morning of a bright October day, observations were noted of the time of passing the stations in nine different flocks. Upon comparing watches it was found that the average time was 2 minutes and 42 seconds, thus showing the speed per hour to be 66 2/3 miles, or one mile in 54 seconds. As showing how uniform was their flight, a difference was found of only five seconds between the greatest and the least intervals of time.

As numerous flocks of wild geese were daily flying in the same neighborhood observations were also taken to test their hourly speed. Two points twenty-nine and one-third miles apart were selected, both of which were connected by telegraph. We succeeded in identifying four out of seven flocks which passed over both places during the four days we were on the watch. The mean hourly speed was found to be a fraction over 64 miles. The wild geese have been supposed to be the swiftest of all water fowl, but this experiment shows that he is far behind the wild duck.—New York World.

What a Uttering is Education!
These are some answers to examination questions given in an eighth grade school not a thousand miles from Chicago:

"Liberia was established in 1822 as a colony for aspirated negroes who had been freed in the American Revolution."
"Nine-tenths of all the plants not found in any other part of the world are found in Australia."
"Salem Witchcraft was neither a soldier nor a sailor, but he discovered some cities."
"Hills."

"You can carry the little vial of Doctor Pierce's Pleasant Pellets right in the pocket of your dress suit, and it will not be discovered. The 'Pellets' are so small that 40 of them go in a vial scarcely more than an inch long, and as big around as a pencil. They cure constipation."
"One 'Pellet' is laxative; two a mild cathartic. One taken four or five times will stimulate digestive action and palliate the effects of over-eating. They act with gentle efficiency on stomach, liver and bowels."
"They don't do the work the massives do. They simply stimulate the natural action of the organs themselves."

"It is true that Maud MacKee was arrested for intimidating voters."
"Yes. She threatened to kiss every man who would vote for Johnson."
"Scratch!"
"Bite."
"Cat."
"Dog."
"Madam," he said, "you are the most sensible woman I ever met."

TRAINING THE BODY.

YALE UNIVERSITY PARTICULARLY EXCELS IN PHYSICAL DEVELOPMENT.

While the intellect is not neglected at New Haven the muscles receive careful attention—A Model Gymnasium Described—Methods of Training.

There are plenty of persons, including those in charge of the institution of course, who consider Yale college the finest educational establishment in the United States, if not the world. So far as mental training goes, however, there are many who, while having great respect for Yale, do not fully concur in this view, and perhaps this is a lucky thing. Otherwise the rush of students to New Haven town might be so great as to overwhelm the settlement and kill the college by simply smothering it to death.

Dr. H. S. Anderson is assisted in his practical work by Dr. W. G. Anderson, his brother, and over Dr. Seaver and both the Andersons is Professor Eugene Lamb Richards, the director of the gymnasium. Though he does none of the actual gymnasium work, his present perfection is largely due to his efforts, for it was Professor Richards who caused the raising of \$250,000 for the erection of the gymnasium building, and he is perhaps the foremost authority on gymnastics and athletics in the country. He is extremely popular with the students, who always speak of him as the "squares" man in the faculty, and it is to him that they turn whenever a decision is to be appealed from in wanted on cases that are not in athletics. Of the gymnasium as an institution it may be said that it is the only one attached to any college in America where the work is organized so thoroughly and scientific a basis as that which has been implanted at Yale.

The visitor who enters this admirably devised building for the first time cannot be impressed by the appearance of the gymnasium proper is reached. Afterward this first impression is almost driven out of mind by the completeness of all the appliances. The baths, the rowing tanks and the offices are all unexampled in their way, but the main floor with its apparatus of every conceivable sort for physical improvement has not its match anywhere. It is almost worth a special trip to Yale's gymnasium to see the main floor of Yale's gymnasium.

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The physical work of the students is performed for the sole purpose of giving the men who undertake it the best possible bodily foundation for the postgraduate course that all must take in the hard school of this world—of fitting them to endure, of building up nerve and muscle, so that they will be not only clever, but cultivated, but strong, self-reliant and healthy as well.

In order to produce this result gymnastic work has been placed upon the same basis at Yale as any other study. Do not cavil at this, for it is the most proper development of the body is a most profound and important study—one the more thorough mastering of which would do away with the necessity for more than half the doctoring that is now needed and the number of hospitals at least one-third. No student is required, however, to take any part in the gymnasium work. Every one who does is first carefully examined and measured by J. W. Seaver, M. D. To every one who needs it, Dr. Seaver gives a prescription card upon which is written a diagnosis of the student's physical condition and needs. If his heart is weak, his liver torpid or his indigestion out of order, if his muscular development is in any degree defective for a person of his size, if there is irregular curvature of the spine, if his eyesight or hearing is below the standard, the facts are stated upon the card, together with the treatment that should be undergone for the rectification of the defect, the various entries on the card covering, in fact, the entire range of the perfect physical man.

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A HALF CENTURY OLD

GOLDEN JUBILEE OF THE UNIVERSITY OF NOTRE DAME.

Brief Resume of the History of a Most Notable Roman Catholic Institution of the Higher Learning—Its Fiery New Birth in 1879.

It was only 50 years ago that the Roman Catholic University of Notre Dame in La—Our Lady of the Lake—was established by the Rev. Edwin S. Sorin, a 600-acre tract of woodland bordering the St. Joseph river, in the northern part of Indiana. It was at first but a small and struggling school, but at the half century mark, it is one of the most notable institutions of learning in the United States.

The first move in the direction of establishing Notre Dame, as by common consent is now termed, was made in 1850 by the missionary father, Very Rev. S. T. Badin, the first Catholic priest ordained within the boundaries of the republic. With a keener insight than that possessed by many others, he perceived the beautiful tract mentioned from the government at \$1.25 an acre with the notion that there a great school should ultimately be located. Later Father Badin conveyed this tract, which had come to be known as St. Mary's of the Lake, to the bishop of Vincennes.

In 1842 the first steps in the realization of the educational scheme were taken, when the prelate conveyed the property to Father Sorin, on condition that a college should be established there within a certain time. This invaluable sort for physical improvement has not its match anywhere. It is almost worth a special trip to Yale's gymnasium to see the main floor of Yale's gymnasium.

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Dr. H. S. Anderson is assisted in his practical work by Dr. W. G. Anderson, his brother, and over Dr. Seaver and both the Andersons is Professor Eugene Lamb Richards, the director of the gymnasium. Though he does none of the actual gymnasium work, his present perfection is largely due to his efforts, for it was Professor Richards who caused the raising of \$250,000 for the erection of the gymnasium building, and he is perhaps the foremost authority on gymnastics and athletics in the country. He is extremely popular with the students, who always speak of him as the "squares" man in the faculty, and it is to him that they turn whenever a decision is to be appealed from in wanted on cases that are not in athletics. Of the gymnasium as an institution it may be said that it is the only one attached to any college in America where the work is organized so thoroughly and scientific a basis as that which has been implanted at Yale.

The visitor who enters this admirably devised building for the first time cannot be impressed by the appearance of the gymnasium proper is reached. Afterward this first impression is almost driven out of mind by the completeness of all the appliances. The baths, the rowing tanks and the offices are all unexampled in their way, but the main floor with its apparatus of every conceivable sort for physical improvement has not its match anywhere. It is almost worth a special trip to Yale's gymnasium to see the main floor of Yale's gymnasium.

But in respect of physical training all who have examined Yale's plant and plant and talked with the accomplished men in charge agree that Yale is at the top. It does not follow if this be true that Yale students will win every trophy offered at every intercollegiate contest in athletics, that they will now the fastest at every base ball or pile up the biggest scores at football. Indeed they might fall behind in all these things and the proposition still be true, for it is not asserted that the system of physical training at Yale makes sure winners, nor was the chief object of the physical work of the students the sole purpose of winning the trophies.

The physical work of the students is performed for the sole purpose of giving the men who undertake it the best possible bodily foundation for the postgraduate course that all must take in the hard school of this world—of fitting them to endure, of building up nerve and muscle, so that they will be not only clever, but cultivated, but strong, self-reliant and healthy as well.

In order to produce this result gymnastic work has been placed upon the same basis at Yale as any other study. Do not cavil at this, for it is the most proper development of the body is a most profound and important study—one the more thorough mastering of which would do away with the necessity for more than half the doctoring that is now needed and the number of hospitals at least one-third. No student is required, however, to take any part in the gymnasium work. Every one who does is first carefully examined and measured by J. W. Seaver, M. D. To every one who needs it, Dr. Seaver gives a prescription card upon which is written a diagnosis of the student's physical condition and needs. If his heart is weak, his liver torpid or his indigestion out of order, if his muscular development is in any degree defective for a person of his size, if there is irregular curvature of the spine, if his eyesight or hearing is below the standard, the facts are stated upon the card, together with the treatment that should be undergone for the rectification of the defect, the various entries on the card covering, in fact, the entire range of the perfect physical man.

When, after mastering the card, the student understands his weakness, he is next given a method of instruction prepared by Dr. H. S. Anderson, to whom the actual training is entrusted, and then the student is put through such a course of exercise as experience shows is especially adapted to his case. For instance, the student suffering from indigestion and dyspepsia is caused to take measures to strengthen the muscles of the stomach, sides and abdomen. Among other things he is told to lie on his back, stripped and his feet fast so that his legs shall be perpendicular without moving his head, body or arms in any way. Then he is told to lie on his back as before and raise his head and body without lifting his feet from the floor or using any prop. Such exercises are greatly prized on the part of either of these for the first time to find it a well nigh impossible achievement. Of course when this is the case it is plainly evident that the abdominal muscles are abnormally weak. Special weakness of itself is sufficient cause for indigestion, indigestion, and vigorous practice at either of the exercises named will certainly and quickly improve the student's condition. If the reader is a sufferer in this direction and has any doubts of the efficacy of the prescription, let him try it and be convinced, for it is quite as beneficial to the nonstudent as to the young man in attendance at Yale.

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