drawing on the blackboard. In the first case the good teacher usually feels there is a failure of full elucidation on his part, while in the second case valuable time is lost, and a break is made in the lecture.

To overcome this difficulty the writer recently devised a simple plan to make line drawings and diagrams on glass slides to be used as regular lantern sides. Clean lantern slide covers are taken, and on them the objects desired are drawn with a "china marking pencil." One must not lift the pencil from the glass while drawing, or else use great care at the points where the pencil is lifted and the same line then continued. It is not necessary to make an absolutely black line, as any mark shows plainly. A few trials will show how sharp one's pencil should be for the best results. As wide a margin must be left as in making ordinary slides. If a mistake is made it can be erased with the finger or a blunt piece of wood. The mark does not rub out too easily, consequently the slides can be used without the further trouble of covering if they are to be of a temporary nature. However, they can be fixed permanently by finishing them in the usual way with a clean cover slip and bound with tape.

As the "china marking pencils" come in at least three colors, black, blue and red, and as their cost is slight (15 cents) and the whole process is simple and short, their use in this way is practicable and inexpensive. The pencils can be purchased at any good stationery store.

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A SUGGESTION FOR MAKING THIN SECTIONS FOR BRYOZOAN SLIDES

IN making thin sections for bryozoan slides it has been noted by the writer that many of them have a frosty, crystalline appearance when they have been ground to the desired thickness. In the process of grinding, numerous small particles of calcium carbonate are forced into the openings, obscuring the structure. As these fine particles have relatively large surface exposure, they will dissolve much more readily than the rest of the fossil when treated with dilute hydrochloric acid. It is best to let the acid act for only a very short time and then wash it off quickly, repeating the treatment several times, if necessary, until the structure stands out clearly.

CHARLES E. DECKER
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A NATIONAL FLORAL EMBLEM

Now that America is engaged in the grim business of war for the defense of democracy, we are tempted in our zeal to forget the things which are purely sentimental because of the pressing needs of the things practical.

But with the dreaded arrival of casualty lists, the great heart of the nation has been deeply stirred, the grief of America stands in yearning need of sentiment. And so sentiment—pure sentiment—sponsors the thought that the American people have a real need for a recognized national floral emblem.

When the cherished day of peace arrives, how shall we greet our boys returning from the front? With flowers? Of course, but how with flowers? Goldenrods? Daisies? Violets? Yes, with all of these, but national sentiments might well be crystallized on a single national symbolic flower.

The rose of old England, the Fleur-de-lis of France, the thistle of Scotland, the chrysanthemum of Japan; all these remind us that America at present does not possess a floral emblem to epitomize the things that are noble and good in the nation.

Why should not all that is best in the American nation be symbolized in a flower as a national emblem? The very mention of such a symbol should stir the depths of patriotism in the breast of every true American. Surely Germany is the loser by not having a well-known floral emblem. In Europe, America has been criticized for being too material—would not the adoption of a national flower be an esthetic step in the right direction?

If, then, it is agreed that America will be benefited by possessing a recognized national floral emblem, the selection of a suitable flower is a difficult task indeed. The flora of the country is so rich that the choice

is large and rendered especially difficult because many plants have each their host of earnest admirers and advocates. In the mind of the writer, a national flower should have certain definite characteristics which are here outlined.

First, it should not be a troublesome weed in any sense of the word. A plant symbolic of our national glory should not be one that pesters and troubles the farmer; such a plant would fall far short of attaining the desired object.

Second, the plant should be native and fairly common in all parts of the country.

Third, a national flower should be easy of cultivation in all regions of the United States.

Fourth, such a plant should possess grace and beauty of both flower and leaf.

One flower, in the opinion of the writer, stands out preeminently as meeting all of these conditions very closely; that flower is the wild columbine. Our native flora can boast of no more handsome or more graceful member than the beautiful columbine. It has much to commend itself strongly to the advocate of a national flower; its graceful, nodding flower and exquisite foliage presents an eloquent plea for the adoption of this gem of nature as a symbol of American ideals. The columbine is native, has never been known as a weed and exists in every state in the Union. In all altitudes may this plant be found, from the peaks of the Rocky Mountains and the highest altitudes of Virginia, to the low lands of the coast. The columbine is easy of cultivation in all parts of the country—thus it fulfils the conditions for the ideal national flower.

And as though to further fulfil requirements, the columbine flowers from April to July, being thus present in its greatest glory on the two occasions when a national floral emblem is most desired, Memorial Day and the Fourth of July.

Again, the American eagle holds a place in the affection of America not shared by any other fowl or beast. The generic part of the scientific name of columbine, *Aquilegia canadensis,* was applied by the great Linnæus because of the resemblance of the spurs of the flower to the talons of an eagle; the Latin name for eagle is *aquila.* The conspicuous floral color is red, one of the three national colors, although the throat of the flower is yellow. The Colorado columbine is blue.

The columbine possesses five petals, a character which could readily be considered as corresponding to the five points of the star on the national ensign. Furthermore, the five spurs of the petals are grouped around a central floral shaft, suggestive of the relation of the states to the central government. The leaves are usually thrice-divided, which could be considered commemorative of our three martyred presidents, Lincoln, Garfield and McKinley.

In order that any plant be universally recognized as the emblem of the nation, it is necessary that the national government take action and render the selection official. Many of the states have already adopted state flowers, and who will say that these states have not been benefited by their actions? One state, Colorado, has already selected the columbine as the floral emblem of the commonwealth. In the advent of action by the national government, a word of warning should be heeded. When a plant becomes well known, there is created a tendency toward the extinction of that species because of the abnormal demand thus created. When Bryant eulogized the fringed gentian, little did he realize that his words would cause such interest in the beautiful flower, that eager misguided collectors would practically exterminate the fringed gentian in many regions. The adoption of the Oregon grape as the state flower of Oregon resulted in its practical extermination in the vicinities of the large cities and the plant became increasingly scarce all over the state. The adoption of a national flower would create demands that should be met in a sane and reasonable manner, or the selection might spell the doom of the favored plant.

A native plant of undoubted grace and beauty, the columbine seems to be the natural selection as an emblem of all that is noble,

chivalric and good in the character of the nation; an inspiration to all true lovers of liberty and justice and a symbol of the ideals of the American people. ALBERT A. HANSEN

WASHINGTON, D. C.

TRANSLATIONS MADE ACCESSIBLE

SCIENTIFIC papers written in some of the foreign languages present few difficulties to large sections of the scientific public, but translations are frequently desirable and sometimes essential. In the past such needs have been supplied by individual initiative and certain papers have been translated time and again. In these days when waste is more nearly criminal than foolish, and cooperation so easy, it should be possible for a worker who needs a translation of a given paper to find out whether or not such a thing is already in existence among his fellow workers before he starts the job anew. And if it is he should be able to secure a copy by paying for the necessary typewriting.

In place of following the somewhat customary plan of making the suggestion and commending it to the attention of this or that organization, the writer has started the compilation of a card catalogue showing the location of manuscript and published translations of books or papers on geology and paleontology and is willing to undertake the expansion of this catalogue to include all translations of papers in these sciences. To do this will require the cooperation of all persons or institutions possessing manuscript translations.

In return the writer will be glad to answer all inquiries regarding existing translations of specific books or papers and will furnish the names of persons or institutions willing to furnish copies of translations in their possession. He can start this at once, and already has records of nearly a hundred, though the value of the service will increase with the addition of new lists of available translations.

The writer realizes that these translations will not maintain a single standard, but he is certain that with few exceptions they will be valuable, and hopes to have the cooperation of his colleagues in making them all available.

Lack of time and the present-day need of hewing to a line necessarily limit this catalogue to papers on geology and paleontology, but the writer is ready and willing to turn over his data to any organization wishing to adopt the scheme in its entirety.

The working of the scheme is perhaps best illustrated by the following reply postal card, which has already been forwarded to the members of the geological and paleontological societies and will be sent to any one else on request:

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