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NOMENCLATURE.

The question of nomenclature is one which just now is being agitated by both botanists and horticulturists. Theoretically, the same laws should obtain recognition in all branches of natural science, zoology, botany and horticulture. The "Recommendations" recently endorsed by the more conservative American botanists, and emanating from the herbarium of Harvard College, give preference in specific nomenclature to the first correct combination; advise that the varietal name is to be regarded as inferior in rank to the specific; discourages the rejection of long established and generally known generic names; and pronounces against the principal of "once a synonym always a synonym" being made retroactive,

Lester F. Ward treats the question of nomenclature at length in the Bulletin of the Torrey Botanical Club, xxii, 308-329, for July, 1895, and is inclined to consider the "Harvard rules" as based solely on sentiment and not tenable if we are to have a stable code.

Let us consider for a moment whether the "new-American school of botanists" or the conservative element, is tending toward a more stable nomenclature in active practice. We (the conservative) use the name *Mammillaria*\* for a well

known genus of cacti, as first used by Haworth in 1812. After 80 years of use, on the strength of the law of "once a synonym always a synonym" it is proposed to discard this name because *Mamillaria*† *Stackh.*, was dedicated to a genus of algæ in 1809—three years earlier—though this use of the name was long since relegated to synonymy itself. The law of priority is also called in play to uphold the replacement of the name *Mammillaria* with the Linnæan name *Cactus*‡ (1735), under which name were grouped all species of cacti at that time known to science.

Neither Otto Kuntze nor John M. Coulter, the modern champions of the genus *Cactus*, as defined by them, seem to be sure of their position. Coulter says: "*Cactus mammillaris* seems to have stood as the type," and follows Kuntze, who, without discrimination, § transferred good and bad species alike from *Mammillaria* to *Cactus*! A name so well established as *Mammillaria*, not only among Botanists, but in the horticultural world, should not be hast-

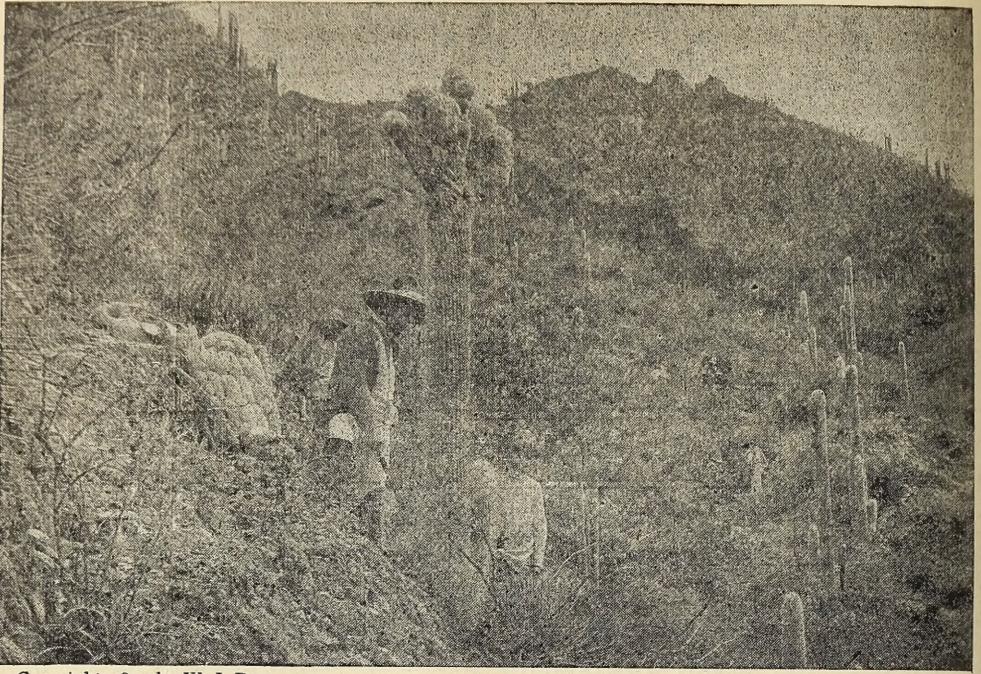
in about equal use—the authorities at the Royal Gardens, Kew, follow Haworth, while most American botanists have followed in the lead of Prince Salm-Dyck.

† I do not know whether the author wrote this *Mamillaria* or *Mammillaria*, but follow the only spelling I have seen in print, since the original work is not accessible to me.

‡ Otto Kuntze, *Rev. Gen. Pl.*, followed by Coulter, Coville, and others,—non Lemair.

§ As an example, *M. tetrandra* and *M. phellosperma* (the latter a well known synonym of the former) are both transferred to *Cactus* as valid species by Kuntze, who made countless similar errors.

\*Haworth wrote this name *Mammillaria*; Prince Salm-Dyck, in *Horto-Dyck*, Ed. II. 5, wrote it *Mamillaria*, with the following foot note: "Nomen genericum *Mamillaria* scribendum est, quia non a verbo *Mamma*, sed a diminutivo *Mamilla* deductum." The two forms of spelling have since been



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PILOCEREUS SENILIS—CRISTATE SPECIMEN.

ily replaced on grounds open to question. The resurrection of the Linnæan name *Cactus* offers a splendid opportunity for a botanist to affix his name to a multitude of valid species (and synonyms!) not yet transferred—but practical botanists and horticulturists must deplore such “botanical activity.”

The name *Cactus* was first used in a restricted generic sense for a group of *Opuntia* by Lemaire, a fact which would add further confusion if we were to resurrect the name as proposed, or as attempted.

My views have already been partially recorded on the nomenclature question in *Science*, xvii, 67 (reprinted in this magazine, vii, 206), but new points continually arise where individual judgment must be used. It seems extremely doubtful if ever *Cactus* will replace *Mammillaria* in either technical or popular use; or that *Fremontodendron* can long replace *Fremontia*, or any name supplant our *Washingtonia* as applied to our Californian fan palm.

It may be sentiment, but sentiment must always form a part of our language and receive consideration, especially when it aids language to perform its duty. The only final settlement of these vexing questions will be through com-

mon usage and a law ignored by horticulturists and the more conservative of our botanists will ultimately disappear. C. R. Orcutt.

MEXICAN SHELLS.

While spending a few weeks in and near Mexico City, in 1894, the following land and fresh water shells were observed. There was no opportunity for more than very desultory work, so that the list is necessarily short.

*SUCCINEA BREVIS* Dkr. I found quite a colony of this little species in the pine woods on the mountains between the cities of Mexico and Puebla, near what is locally known as Rio Frio.

*S. UNDULATA* Say. A common species in the City of Mexico; my specimens were collected near the Castle of Chapultepec.

*HELIX ASPERSA* Mull. This introduced European snail has become very abundant along the ditches and canals in the City of Mexico, and in gardens has become quite a nuisance.

*H. HUMBOLDTIANA* Val. A single specimen was found near the top of the mountain pass, in going to Puebla; said to be one of the commoner species in the State of Mexico.

*PATULA HERMANNI* Pfr. A colony of this minute shell was found near Rio Frio.

*BULIMULAS ALTERNATUS* Say. Dr. Herrera, of the Museo Nacional, gave me a few specimens of this shell, which I did not meet in the field.

*GLANDINA GUTTATA* Cr. & Fisch, near Rio Frio?

*G. PLICATULA* Pfr. In the mountains north of Cuautla?

*PLANORBIS TENUIS* Phil.

*LIMNÆA ATTENUATA* Say.

*PHYSA BOUCARDI* Cr. & Fisch. With the two preceding species, common in the City of Mexico.

The above shells have all been identified by Wm. H. Dall of the U. S. National Museum, to whom I am indebted for many similar favors.

C. R. Orcutt.

### A MONSTROSITY.

Abnormal growths always possess a certain interest to horticulturists as well as botanists. We illustrate herewith a curious plant of *Pilocereus senilis* the old man cactus, as it appeared when discovered in the state of Hidalgo, Mexico. This plant was shipped to Paris, where it attracted considerable attention among cactus fanciers.

### EDITORIAL.

For years we have preserved carefully every book, magazine, newspaper, pamphlet, and even catalogues, and circulars—many literary productions that generally meet destruction, but which have a value in a library which aims to be complete and of use to future ages. It is hoped that this material may ultimately find a permanent home in some public institution; in the meantime we shall appreciate any contributions of literature, and in addition to our thanks we offer liberal exchanges in return of seeds, bulbs, native cacti, advertising space in this magazine, or subscriptions to the same. Nearly every one accumulates in time a mass of literature useless in part to the owner—but do not destroy—we want it saved.

We have several thousand duplicate magazines, books and pamphlets, which we will also exchange, or donate to any public institution that will refund to us the postage. Among them we name:

The Semi-Tropical Planter—complete sets. The Great Southwest—sets incomplete. The Young Men's Journal—nearly complete. The West American Scientist—about 50 odd numbers. The North American Review—about 50 odd numbers. 10th Annual Report Calif. State Mining Bureau. Miscellaneous books, magazines and pamphlets.

### THE SECRETS OF SUCCESS.

The broad roads to a successful industrial reform, based upon 70 years' experience in England, are thus summed up by the *Co-operative News*: 1—The establishment of co-operative societies for supplying the wants of their members of every kind, whether by purchasing goods wholesale or manufacturing or producing these goods themselves; 2—the establishment of federal associations, such as grain milling and wholesal societies, for supplying the retail societies with goods that the retail societies cannot otherwise obtain so advantageously, and to manufacture or produce these goods when it is found advisable to do so; 3—in doing these things, to pay capital its fair remuneration and pay fair wages to the workers, besides treating the latter in that considerate manner that all co-operators would desire to be treated, and which is the golden rule ordained by Christ; 4—employing surplus capital in employing co-operators to produce for the supply of the outside market, whether in our own or foreign countries, in order that labor may be justly treated and receive its full reward.

### INTEREST.

One of the prime factors in our present industrial condition is interest; 80 per cent. of the wealth of the U. S. is interest bearing today, and our annual interest charge is \$3,000,000,000 or \$800,000,000 more than our annual increase of wealth! In other words, capital not only demands and receives its share in the increase of our national wealth, but the working man's as well, besides drawing to itself \$800,000,000.00 of the past accumulations of labor yearly! The final result can be nothing short of the industrial enslavement of the people, if the present trend of events is not arrested,—and it is in co-operation that we must find the means of arresting and abolishing interest. Co-operation is successful in so far as it destroys this factor, in which is vested the power of capital—for, shorn of interest capital is weak, like Samson of old when shorn of his beard.

### NOTES AND NEWS.

Prof. J. A. Miller of Stanford University has accepted a call to the University of Indiana.

The peach blossom has been selected by a vote of the school children of Delaware as the floral emblem of that state.

Prof. Edward Lee Greene, for many years identified with botanical work on the Pacific Coast, has become identified with the Catholic University, of Washington, D. C.

Prof. E. W. Hilgard, of the State University, has been quite ill but is now convalescent.

Prof. Symington has resigned from Stanford University to go to Amherst College.

## THE WEST AMERICAN SCIENTIST.

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