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Disce quasi semper victurus; vive quasi cras moriturus.

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Past and Future.

BY E. P. RYDER.

Out of the chaos time and change create
We gather fragments of our happiest years,
And look on them, and wonder joys so great
Should ever be to us a source of tears.
The faded flower, the favorite book or song
Of one we loved, yet only loved to lose,
Causes the old-time memories to throng
Of days when life was tinged with roseate hues.

Not what has been, but what is yet to be,
Is that which turns our sadness into joy;
The thought, kind Lord, that we may be with Thee,
If we prove life is not all base alloy,
Quenches rebellious fires with happy tears,
And gives us patience through the after years.

—*The Ave Maria.*

Two Hours in the Biological Laboratory.

BY H. C. ROTHERT, '87.

At home, I often noticed in the evening, when batter was made for buckwheat cakes to be used the next morning, that one or two spoonfuls of some gray, suspicious-looking substance was put in. Of course, I asked, now and then, concerning the nature of these things; but, "little boys ask too many questions." However, my curiosity was aroused, and I was determined, sooner or later, to find out all about it. The next morning, the pot which contained the batter was full to overflowing, whilst the evening before the bottom had been scarcely covered. One afternoon, whilst I was alone in the kitchen, I determined to put some of the grayish substance into some dough, or batter, to see it rise. But, a step at the door,—a hasty farewell with my preparation—and I considered it best to postpone my biological researches.

Some time ago, I saw that very same grayish-looking matter in the Biological Laboratory, and, of course, I at once recognized my "old friend." I was told that on a certain day this substance was to be explained, and would form the subject of the first lesson in practical Biology. On the day appointed, I went with unusual haste to the Laboratory, for I was eager to find out all

about this mysterious substance, and I give herewith the result of my investigation.

That grayish-looking substance is nothing but a mass of plants, called "yeast" long before any of us were born. It may be described as a substance which causes alcoholic fermentation in fluids containing sugar. The yeast plant was discovered by Cogniard, Latour and Schwann, and it was this discovery that confirmed Pasteur in his views on fermentation. These yeast plants are sexless and mono-cellular, and contain no chlorophyll, or green coloring matter. Here it may be said that it is owing only to the constant and steady advancement of Biology within the last few years that the importance of the study of this plant has been recognized, as in it are implied some of the most important fundamental phenomena of life.

For the benefit of those not initiated into the working of a biological laboratory, I consider it best to describe, briefly, the various steps taken to find out the nature of this plant. We put some yeast in a small glass of sweetened water and kept the mixture in a warm place. While the preparation was getting ready (which requires about a quarter of an hour), we found out the position this plant occupies in the vegetable kingdom. It belongs to the second class of the lowest forms of plants, the *Protophyta*, and its scientific name is *Torula*, or *Saccharomyces Cerevisiæ*.

When we returned to look at our mixture, a brownish fluid, the first thing we noticed was that it began to be covered with froth, and that bubbles were continually rising from the bottom. The yeast plant, like all fungi, absorbs oxygen and gives off carbonic acid gas in the form of these bubbles. If the chemist were to analyze the yeast, he would find it to contain the following elements: carbon, hydrogen, oxygen, nitrogen, sulphur, phosphorus, potassium, magnesium and calcium—the last four in small quantities. These elements so combine as to form the direct constituents, viz.: protein, cellulose, fat and water.

Now, if a drop of the preparation be observed through a hand-glass, it does not appear like one mass, as it does to the naked eye, but looks as if a fine powder had been scattered through it; and if we look at it with a considerable magnifying power, say 4–500 diameters, we may even see the structure of each yeast cell. How different it is now from the plain, brownish fluid! And yet it is the same. We can see floating in the watery fluid a

number of round masses, and we are told that each one is a plant called *torula*. They are transparent and are either spherical or lemon-shaped, having a diameter of, from 1-2500th to 1-7000th of an inch (average about 1-3000th). They are either single or hanging together like the links in a chain. Now, if we observe one of these *torulae*, we will find out the three parts that generally compose a cell, namely: the cell-wall, the protoplasm with a vacuole, and nuclei. The cell-wall is somewhat tough, but may be broken, which allows the contents to escape. This semi-fluid matter contained within the cell-wall is the protoplasm. In some cells it is darker and less transparent than in others; and sometimes it contains a few clear, shining dots. These are the granules or nuclei. Their exact composition is not known, but they are supposed to be contracted or differentiated protoplasm. Generally, in the centre of the *torula*, there is a round space more transparent than the surrounding protoplasm; this is the vacuole which contains either water or air, or sometimes oil. However, this vacuole is not always in the centre but very often on the side, and sometimes it extends almost over the whole cell. It is also absent in a few cases.

Having examined the construction of a single cell, the nature of the chain of cells remains to be explained. One of the full-grown *torulae* sends out a little bud from its side, which continues growing until it becomes about as large as the parent. This is a young *torula* which, when it has reached the full-grown stage, is either detached from its parent cell or remains adhering to it. If it does not separate itself, it will send out a new bud, which in turn again will send out another, and so on, until a string of cells is formed, all remaining connected together. These chains consist of no more than five or six *torulae*, because the cells, after having reached the adult state, are liable to break off any time. This mode of reproduction is called "budding" or "gemination." Under certain conditions, the *torulae* will multiply in another manner—*i. e.*, by endogenous division. Instead of throwing out a bud, the protoplasm of the *torula* divides itself into several masses (usually four), each of which is then surrounded by a cell-wall. These interior masses are called *ascospores*, and when they have reached the stage of a *torula*, the cell-wall of the parent either breaks or dissolves, and the new cells are set free. But as this mode of multiplication requires a preparation of eight or nine days, we must content ourselves for the present with a mere mention of the fact.

Now, to become better acquainted with our *torula*, we will feed it on various fluids. First, we will give it a drop of *magenta* solution. If we follow the solution as it is drawn in under the cover-glass, we soon notice that the cells containing the most protoplasm stain sooner and of a deeper red than the others. The cell-wall is not affected. Then, what has become of the vacuole? Has it stained with the protoplasm? No; for, if it be observed more closely, the vacuole will be found unstained, generally appearing pinkish, because it is seen through an intervening layer of

colored protoplasm. Some few cells are not stained at all, and as magenta colors all protoplasm red, it follows that these cells do not contain any, and are consequently dead. Now, let us take another preparation and apply to it a drop of *iodine* solution. This, like the magenta, stains only the protoplasm, but instead of a red, it gives it a brown color. Starch which is colored blue by iodine cannot be found within the cell; though in this particular yeast (Fleischmann's Compressed) starch granules may be found scattered profusely throughout the preparation. The yeast, as is known, feeds on sugar which, comparatively speaking, decomposes in a short time. But starch, which does not decay, is changed into sugar under a proper condition of heat and moisture. This starch is therefore put into the yeast so that, when under the proper conditions, the plantlets will readily find food and can immediately proceed to grow. If we take another drop of the fluid containing the yeast plants, and treat it with *potash* solution, an entirely different re-action takes place. We find the cell-wall unchanged, as usual, but the protoplasm is all dissolved, leaving an empty sac.

As to the vital activity of the *torula*, the following facts are known, and may be verified by subjecting the yeast under various conditions and noting the result. The growth of the yeast is greater in a fluid containing sugar than in simple water, and greatest in a fluid composed of the chemical constituents of the *torula*. Yeast is not affected by light; but it will grow faster when kept in a warm place than it will in a cold place. If the yeast, while growing, be either boiled or frozen, its efficiency will be destroyed—that is, the *torulae* are killed by exposure to extreme heat or cold.

Here we may end our observations, for we have found out something about the yeast plant. That it is a living organism; that it grows and reproduces itself. Many more points could have been studied, but let these few suffice to give a simple but correct idea of the yeast. As the yeast plant is intimately connected with fermentation, I would gladly speak also of this subject, but I hope to be permitted to refer it to a future communication.

The Country West of the Mississippi River.

III.

Summit, 7,017 feet above sea-level, and fourteen miles west of Truckee, is the highest point crossed by the railroad on the Sierra range. It is 1,669 miles west of Omaha and 245 miles east of San Francisco. The scenery in the locality, and all the way down into the valleys of California, is grand, varied, sublime. Here are towering peaks, awful chasms, deep gorges, great precipices, sparkling waterfalls, groves of fir and pine, and the headwaters of three or four notable rivers—the South Yuba, the Bear, and the American—which empty into the Sacramento. Numbers of flumes and ditches carry water in large streams to the hydraulic mining camps, so numerous on the

western slope of the Sierras. At Cape Horn, as it is called, where the American River comes into view, and looks like a silver thread 20 or 30 miles away, in the cañon to the southeast, a place is tunneled for the railroad into the side of the mountain. Above the track on one side the mountain rises 1,000 feet or more, while on the other side is a precipice 2,000 or 3,000 feet in depth. When the railroad was in course of construction in this locality the men who broke the first standing ground were held by ropes until firm foot-holds could be excavated in the solid rock. There are several flourishing towns along the western slope of the mountains, and the land in vicinity of them is generally under cultivation. The descent from the mountains is abrupt and sharp enough to attract general attention, but every mile of it brings more prominently into view the distinguishing features of

CALIFORNIA,

in respect to scenery, climate, population, material development, etc. The novelty and variety of the towns, farms, dwellings, groves, rivers, irrigating ditches, and other objects visible, quicken the senses and impart new life to the interested and pleased traveller. Sacramento, the capital, is the most important city of the interior, although its population is not over 25,000. Situated on the Sacramento River, and being fairly supplied with railroads, it is a leading business centre and distributing point. Some 35 years ago ocean steamers could navigate the river as far as Sacramento, but the mud and debris, since washed down from the mountains by the process of hydraulic mining, have been carried to and deposited in its bed, and consequently it has become very shallow. Steamboats drawing only three or four feet of water are the largest craft that can now navigate it. Furthermore, the surrounding country has thus been rendered specially subject to inundation. From time to time the river overflows its banks, and the water spreads out over the country for miles and miles, giving it the appearance of a lake or sea. Property worth millions of dollars has been destroyed, people have had to endure great privations and suffering, and vast numbers of cattle, horses, sheep, etc., have been lost on the recurrence of these irregular visitations. After some of the great freshets the ground has been found covered with a reddish and tenacious mud, three or four inches in thickness. Though the soil appears to be of inexhaustible fertility, yet irrigation is deemed necessary, in this section and all through the interior. The San Joaquin Valley, for instance, which lies southwest of Sacramento, is intersected with irrigating ditches that carry water in the volume of small rivers from the mountains 50 or 100 miles away. This great valley is about 30 miles in width and over 200 in length. Wells are also a great source of reliance in dry weather, and wind-mills erected to draw water from them are conspicuous objects on almost all farms. In summer, the whole country has the appearance of being dry and parched. The grass looks withered and has a grayish color. Dust lies inches thick on the roads, and every gust of wind

or passing vehicle may send it flying in clouds into the air. The land lies fallow and neglected. Let the vision wander where it will, it can nowhere rest upon flourishing vegetation and crops growing in the fields. The hot sun beats down upon an uninviting landscape, where the temperature frequently registers 100° in the shade. Such is summer or the dry season in the interior of California. Perhaps it is superfluous to say that the year is divided into two seasons—the dry and the rainy—on the Pacific coast. Spring, summer, autumn and winter are there unknown. People speak only of the dry and the rainy season. The appearance of the country in the former season has just been briefly described. But now a few words in reference to the latter: The rainy season sets in about the beginning of November, and lasts until early in May. The rain falls principally at night, and the days are generally clear and pleasant. At Christmas, green grass of luxuriant growth covers the whole face of the country. In January bright flowers of every hue cover in profusion the uncultivated lands on hill, in dale, in valley. In April and May the crops ripen, and in May and June they are harvested. They are generally sown in November and harvested in May. In the rainy season the days are generally pleasant in the interior, though sometimes a trifle too cool for comfort near the coast. Throughout the State in both seasons the nights are cool—so cool that a fire is commonly desirable. Land in the interior of the State is generally undulating. Hills and knobs of almost uniform size and appearance are monotonously numerous. They are ordinarily treeless, uncultivated and uninteresting. The mountains nearest to the Pacific are called the coast Range. This range extends not only along the entire length of the State, but also along the coast of Oregon and Washington Territory. It has an average elevation of 3,000 feet, and is broken here and there by small rivers and fertile valleys. It is from 10 to 30 miles inland, and the region between it and the ocean is regarded as the most characteristic part of California, when considered with reference to soil and climate. There grow the grapes, oranges and most of the other fruits of California, and there the climate is coolest and most equable throughout the year. San Francisco is built on the northeast point of a peninsula, the length of which is about 40 and the width 7 miles. North of this peninsula is the famous "Golden Gate," or the channel connecting the ocean with the Bay of San Francisco. This channel is about 7 miles in length and 2 in width. The bay itself, commodious and deep enough for all the navies of the Pacific to find ample room and safe anchorage in it, is 8 miles wide and 40 long. From San Francisco proper the bay is fully seen, and upon it the city fronts. A line of high hills intercepts the view of the ocean. San Francisco has all the marks of a great and flourishing city. The better buildings, constructed of stone, iron, brick and marble, compare favorably in size and architectural finish with those of New York and Chicago. The population of San Francisco is about 300,000,

including 30,000 Chinese. These people are very numerous on the Pacific Slope, and there is probably no town of noteworthy size in all that region—from the “Continental Divide” to the Pacific Ocean—in which numbers of Chinamen cannot be found.

California is about 700 miles in length and 200 in width. For 150 miles south of the line separating it from Oregon, it is very mountainous and heavily timbered. The Sierra Nevada, Shasta and Coast Range mountains meet in that quarter and, in a sort wild confusion, tower upward in peaks and groups of exceptional height. Mount Shasta, the highest of them, has an elevation of 14,440 feet above sea-level. South of it is the Sacramento Valley, fertile in soil, rich in resources, and distinguished by a profusion of natural beauties. Through its centre flows the Sacramento River for a distance of 175 miles, or as far south as the State Capital. Thence, turning and pursuing a westerly course, the river ultimately empties into the Bay of San Francisco, about 140 miles from Sacramento. Further inland, however, are two smaller bays—Suisun and San Pablo—which the river enters, and through which it flows. Tuiles or rushes, from 6 to 10 feet in height, grow thickly upon the river banks in some places and cover the low lands subject to annual overflow. When these “tuile” lands are properly ditched, drained and reclaimed they become the most productive in the State. Red Bluff, about 140 miles north of Sacramento, is at the head of navigation. Only small, light-draft steamboats can navigate the river, and even by these it is not much used. The facilities for transportation, however, are very good, as there are two lines of railroad in the valley, the longer of them terminating at Redding, just south of Mount Shasta. The chief towns are Red Bluff, Chico, and Marysville, all of which are eligibly situated and prosperous. Marysville legitimately enjoys the reputation of being one of the prettiest towns in the State. In the southern part of the valley agriculture is the chief industry. Further north, grazing, mining and lumber cutting are of paramount importance. It is about 400 miles long and 50 wide. Though mainly treeless, it has several small groves of oak and other varieties of hard timber. The region west of the north part of Sacramento Valley, or that lying between it and the ocean, is too mountainous for practical utility. Though numerous little valleys are scattered through it, they are so isolated and difficult of access that but few people have sought to establish permanent homes in them. Extensive forests, mainly of pine, cedar and fir, there abound.

Along the Coast Hills, however, a species of redwood may be found in several localities. The madrona and the manzanita bush are also common, and grow more or less extensively in all parts of the State. The madrona is an open growth evergreen tree, of the laurel species, with oval leaves, pea-green beneath and dark and shining above. It has a smooth bark that peels off every year. When young it is a greenish yellow; when mature, a bright red. In bark and fruit the manzanita

bush bears a close resemblance to the madrona. Birds are fond of the berries of the madrona and feed upon them, while the bears and the Indians derive a large share of their sustenance from the berries of the manzanita bush.

The Geysers constitute one of the most remarkable natural curiosities in Western California, or in the State at large. They are about 100 miles north of San Francisco. In going from that city to them the traveller takes one of the large boats of the Vallejo route, which steams out into the bay, turns north, passes Oakland, the largest city on the east side of the bay, leaves the “Golden Gate” on the west, sails into the narrower channel forming a continuation of the bay on the northeast, proceeds through that, and then enters San Pablo Bay, where the channel widens into what in this part of the country would be called a little lake. At the northeast end of this bay lies Vallejo, a city of 7,000 inhabitants. This trip by water brings beautiful scenery and many interesting objects to view. Seven small islands are passed on the way. The towns of Saucelito, San Rafael, San Pablo and Benicia are seen in the distance. Mount Diablo, too, which lies midway between Oakland and Stockton, is a conspicuous object. From Vallejo the traveller goes by rail to Calistoga, 73 miles from San Francisco. Through all this section vineyards are numerous, and much attention is evidently bestowed upon fruit-raising. Five miles west of the town of Calistoga is the celebrated “Petrified Forest.” It comprises about 40 acres, and the ground is more or less thickly covered with petrified trees. Some of them are 25 feet in circumference. Most of them have fallen and are covered to a great extent with earth and volcanic matter, while the ground fairly sparkles with silica. From Calistoga stages run to the scattering towns in the mountains within a radius of 50 or 60 miles. Twenty-six miles northwest of it are the Geysers. They are in a little valley that looks not altogether unlike the crater of a great volcano. It is about 1,600 feet lower than the general level of the surrounding hills. The descent to it is abrupt, steep and difficult. In a little ravine at one side of this basin or valley are over 200 mineral springs. In some of them the water is ice cold, in others boiling hot; in some it has a sweetish taste, in others it is sour or bitter; in some it tastes of soda, while in others sulphur, magnesia, iron, salt, alkali, etc., predominate. Sulphur deposits, of singular diversity of colors, being white, black, red, yellow, etc., are numerous. The ground around the springs appears to be little more than a mere crust. It shakes and trembles in manifest obedience to the energy of internal fires. Boiling water of inky blackness shoots up at irregular intervals from these infernal caldrons, beneath which an inextinguishable fire seems to burn and rage. An oppressive heat fills the whole place, the fumes of ammonia and sulphuric acid gas blend; the ground is sufficiently agitated to produce dizziness, steam rises in puffs and clouds, and greatly circumscribes the range of vision, and odors too strong for even a Chinese festival hang over the

uninviting scene. At the same time, the almost terrified spectator hears a confused commingling of peculiar noises, as the elements contend and clash, roar and rumble, hiss and spurt, bubble and steam, with an occasional sepulchral detonation like underground thunder to serve as chorus of the awful din. It is a spectacle that evidently surpasses the fancy of that highly imaginative thinker, Col. Ingersoll, and it would probably do him good to go there and see it. One of the springs is known as the "Devil's Grist-Mill"; another the "Calliope"; and then the "Steamboat Geyser," the "Witch's Caldron," the "Mountain of Fire," etc.

Among the valleys best known and most populous in the country north of San Francisco are Petaluma, Santa Rosa, Russian River, Sonoma, Napa, etc. These are generally small of size, though the land is well adapted for fruit-raising, grape culture, grazing, agriculture, etc. Northern California is very mountainous and heavily timbered. The whole country, excepting the little valleys, is covered with dense forests to the very shore of the ocean.

There is a material difference in many respects between the northern and the southern part of California. The latter is warmer, dryer, and far less abundantly supplied with water and timber. The San Joaquin Valley is the most fertile and extensive body of agricultural land in it. In width it is about 30 miles, and in length 200. It extends as far south as Visalia, in Tulare county. Tributary to it are several small lateral valleys, of which special mention need not be made, as they compare with it in appearance, fertility, etc. Scattering groves of hard timber greatly enhance its beauty. The principal products are wheat, corn, barley, rye, beans, peas, potatoes, etc. Tobacco and cotton also grow in it. The valley embraces more or less of nine counties, but Merced is the richest of them. This is 140 miles from San Francisco, and almost directly west of the celebrated Yosemite Valley, which is situated at the western base of the Sierra Nevada Mountains.

Yosemite Valley runs into and among the mountains for a distance of eight miles, and they rise to almost perpendicular heights on both sides of it. Its width varies, being half a mile at some points and a mile at others. The Merced River comes down from the mountains at the head of the valley, in a series of waterfalls, to which enchanted tourists have given distinctive names. The granite mountains rise almost vertically on either side of the valley to heights varying from 2,000 to 6,000 feet. The most notable waterfalls are known as the "Ribbon," 3,300 feet; the "Upper Yosemite," 2,634 feet; the "Bridal Veil," 950 feet; the "Nevada," 700 feet; the "Lower Yosemite," 600 feet, and the "Vernal," 350 feet in depth. Of the mountains, the "South Dome" is 6,000 feet high; the "Three Brothers," 4,000; the "Cap of Liberty," 4,240; the "Three Graces," 3,750; "North Dome," 3,725; "El Capitan," 3,300; "Sentinel Rocks," 3,270; "Cathedral Rocks," 2,690 feet, etc. Here are waterfalls that seem to burst forth from the clouds and come down from

them in the volume of rivers; here are little lakes of great depth, with water pure as crystal; here are dark gorges and awful chasms; here are towering cliffs of granite whose summits, like silver pointed spears, pierce and disappear among the clouds; here is probably the grandest, most interesting, most varied, and most beautiful scenery in America, if not in the world.

A few miles southwest of Visalia is a magnificent body of water called Tulare Lake. It covers an area of 7,000 square miles, being 30 miles long and 25 wide. Kern Valley begins in this quarter. The soil in it is very productive, being largely composed of sedimentary deposits. It is watered by means of irrigating canals, artesian, wells, ordinary wells with windmills, etc. Some of the canals are 40 or 50 miles long, eight feet deep, and from 100 to 275 feet wide. The water is mainly secured from Tulare, Kern and Buena Vista lakes and White Rock Creek. Many of the largest ranches or farms in the State are to be found in Kern Valley. Further south the Mojave desert comes into view. But between it and Kern Valley a formidable mountain range looms up. In ascending and passing over this range the railroad had to be constructed so as to cross itself at what is known as the "Loup," or Tehachapi Pass. Much difficulty was encountered there in building the railroad, and innumerable tunnels had to be constructed. Between Caliente and the summit, a distance of a few miles, there are no less than 17 tunnels. The desert is arid, bald and bare. Sandstorms frequently sweep over it. Only cactus and a stunted species of sagebrush seem to be capable of taking root and growing in it. A species of cactus seen there and in Arizona grows to enormous dimensions, sometimes attaining a circumference of 8 or 9 feet and a height of 50 feet or more. Further on in a southwesterly direction, across the Santa Clara Range, San Fernando comes into view. Here the scenery, soil and climate are changed as if by magic. The luxuriant vegetation and manifold beauties of a tropical climate rise before the vision with almost startling suddenness. Here grow orange, lemon, fig, pomegranate and almost all the southern and tropical varieties of fruit trees in perfection and profusion. Vineyards, too, cover the country for miles and miles. A short distance beyond is the beautiful and enterprising city of Los Angeles. Though from 17 to 25 miles from the ocean, it has three harbors tributary to it and railroad communication with each of them. They are Santa Monica, San Pedro Bay and Santa Ana.

West of the Mountains as far as San Diego, in the extreme southern part of the State, the country is generally fertile, although sparsely populated. Irrigation is necessary to make the land productive. The climate is delightful. Probably nowhere in the world is it surpassed in mildness and unvarying temperature. From Los Angeles the railroad follows the Santa Ana Valley in a southwesterly direction, the main range of mountains being on the left. The towns along this valley are small, scattering, indifferent. At San Geronimo Pass the

country again becomes arid, dry, desert-like in appearance. Beyond the pass the road descends into the Colorado Desert. This was undoubtedly at one time the bed of an inland sea. There is a down grade for 61 miles, and then the railroad is 263 feet below sea-level. The valley of the lower Jordan and the shores of the Dead Sea are not more barren than this region. For miles and miles not a shrub nor even a blade of grass is to be seen. The fatigued vision searches in vain for some little oasis in this howling wilderness of rock and drifting sand. A thin line of vegetation, mainly sage-brush, may in some places be seen far off on the distant hillsides; but in the desert proper there is no water, no sign of vegetable life—nothing but rock and sand—sand and rock. In one portion of it, however, a large deposit of salt has been discovered. And mud volcanoes, too, have been found. In one of them the mud spouts up through at least 20 apertures and crevices. Sand-storms are not unusual, and in some instances the sand and pebbles are pelted with great fury, breaking the windows of the station-houses.

ARIZONA.

Just beyond the desert Fort Yuma, and the town of that name, the Colorado River and the Territory of Arizona come into view. But the country still maintains its desert-like appearance. Yuma is situated on a low, level, sandy plain, the prevailing hue of which is a dull, ashen gray. The sun beats down upon the muddy river and surrounding sand dunes with an intensity almost prostrating and a glare almost blinding. The sky is wonderfully clear. There is compensation for the heat in the fact that the richest and deepest of colors flash out along the horizon morning and evening when the sun rises and sets. These colors paint all the landscape and shine forth in countless splendors on the crests of the distant mountains. A large part of the Territory of Arizona is not specially inviting to the traveller or to anybody. It presents to the view broad, gravelly plains, bearing only cacti, with here and there the leafless palo verde tree and the ubiquitous sage-brush. In the distance are seen high mountains of granite, to which the vision vainly turns for relief. These barren and dazzling masses of rock are seen in every direction.

There are several vast desert tracts in Arizona, and the sole occupants seem to be lizards, scorpions, tarantulas and rattlesnakes. Everywhere among the mountains can be seen indications of fierce volcanic action. The country is thinly settled, insufficiently watered, and not adapted, except in a few favored localities, for grazing and agriculture. Timber is also very scarce. Mining is the leading interest, but it is carried on at a great disadvantage on account of the scarcity of water. Arizona is a strange, wild, wonderful region. It has vast plateaux, extensive deserts, timbered table-lands, lofty mountains, deep gorges and impassable chasms. Its scenery exhibits great diversity and is seldom tame. No place could be more interesting to the geologist and the student of nature.

THE NORTHWEST COAST.

Before closing, at least a few words must be said relative to Oregon and Washington Territory. With the exception of the Willamette, the Umpqua, and some of the smaller valleys, that whole region is covered with dense forests of fir, cedar and pine timber for a distance of 160 miles from the ocean. Excepting in the valleys named, the country is almost uninhabited. The timber in these almost interminable forests is of remarkably large size, many of the trees being 250 or 300 feet in height and 25 feet in circumference. East of the Cascade mountains, which are a continuation of the Sierras, there is but very little timber. The great basin of the Columbia River has an elevation of about 2,000 feet above sea-level, and water is generally not abundant enough to render the land available for agricultural purposes. It seems, however, to be well adapted for grazing, and vast herds of cattle roam over it. About 100 miles east of the mountains water and timber become more plentiful, and, by means of irrigation, the land is there rendered exceptionally productive. Such is particularly the case in vicinity of Walla Walla. That section and the country northeast of it, extending into Idaho and Montana, have great natural resources, a very productive soil, and more than the customary complement of timber and water, and can hardly fail in time to become a most populous and important part of the Columbia River region.

I am inclined to believe that a more accurate idea can be formed in respect to the general appearance of the Pacific Slope if I refer a little more explicitly to

THE MOUNTAINS

before taking leave of the subject. One great chain of mountains runs along the Pacific Ocean, from the southern border of Paraguay to the Arctic Ocean. It is known by different names in different countries and States throughout its hemispherical sweep. In South America it is called the Andes and the Cordilleras; and some of its most prominent peaks in that quarter, as the Nevado de Serato and the Nevado Illimani, rise to elevations of 25,300, 24,450 and 24,200 feet above sea-level. A portion of this great chain deflects to the east in Colombia and Venezuela, and faces the Caribbean sea on the south. In that range is the most notable and majestic instance in the world of perpendicularity in mountains. It is the Silla of Caracas, which rises to an altitude of almost 7,000 feet, and overhangs the sea. The grandeur and sublimity of the spectacle can better be appreciated when it is stated that in all the Alps there is no elevation of even one-fourth of that height which at all sustains comparison with it in perpendicularity. Most mountains gradually slope upward from their bases at an easy angle, and may be ascended to their very summits.

Among the Andes one beholds some of the sublimest objects in nature—mountains whose granitic foundations are among the palms of the tropics,

while their summits are hidden in the never-wasting snows of polar climes. The eternal winter of their summits finds explanation in remembering that 352 feet in height is equivalent in its effect on the mean temperature to a difference in latitude of 60 miles, each being attended by a change of about 1° F. Near the equator perpetual snow covers the mountains at the height of 15,207 feet; in latitude 60° it is found at 3,818 feet, and in latitude 75° at 1,016 feet.

In passing northward along the Isthmus the shining crest of the mountains is bowed to the majesty of sea and ocean, and their altitude is only 300 feet. But in Central America and Mexico they take leave of their humility and rise in famous peaks to regions high above the clouds and inaccessible to man. In Mexico they spread out from east to west for a distance of 100 or 150 miles, and attain an average elevation of 7,500 feet. There the principal range is known as the Sierra Madre. Still developing in width and augmenting in perplexity, they enter the United States, and, just north of the Mexican border, exhibit the greatest depression that marks their onward sweep to the frozen ocean of the north. In that latitude the continent may be crossed without exceeding an elevation of 4,000 feet above the sea. There the mountains still further separate and spread out more definitely, assuming the character and appearance of independent ranges. The Rocky Mountains, which constitute the main range, deflect to the northeast; but, on entering Colorado, turn to the north and so continue until they reach the northern part of Wyoming, where one of the grandest and most awe-inspiring of Nature's wonders on the American continent—the Yellowstone National Park—is to be found. Then they turn more obliquely to the northwest and maintain that direction until within 700 miles or so of the ocean. There they turn northward again and so continue to the end. The Sierra Nevada Mountains form for a considerable distance the boundary between Nevada and California. In Oregon and Washington Territory they are called the Cascades. Thence they continue their course northward to Alaska. The Coast Range follows the general contour of the coast. It includes the Barnardino, Santa Clara, Contra Costa, Shasta and Umpqua Mountains. In Washington Territory the ranges are disconnected and broken to a great extent. The region along the Columbia River from the ocean to the Cascades is distinguished by low mountains of well rounded outlines, all of which are heavily timbered. Around Puget Sound the mountains are loftier and bolder, the majestic Mount Ranier being a conspicuous example; but there, as elsewhere, the forests seem to be interminable and crowd down to the very verge of the water.

Timber does not grow and vegetation practically ceases upon the mountains at an elevation of 11,000 feet above sea-level. Higher up, hardly anything but mosses, with a few straggling wild flowers, can be seen among the rocks and the snow. One can hardly behold this contrast—delicate flowers growing among the mosses high above timber-line on

the mountains—without being quickened by salutary reflections and thinking of the glory and greatness of God, whose omnipotence finds illustration in the flowers, as well as in the mountains. Inspired by such thoughts, how meet and natural to invoke Him as

"God of the granite and the rose,
Soul of the sparrow and the bee;
The mighty tide of being flows
Through countless channels, Lord, to Thee.
It leaps to life in grass and flowers,
Through every grade of being runs;
While from Creation's radiant towers
Its glories flame in stars and suns."

College Gossip.

—Professor in French to student: "*Ces Dames*." Student takes him at his word—general confusion ensues.—*Ex.*

—Senator Stanford, of California, will begin the erection of the new Palo Alto University when he returns to San Francisco this month.

—The prize offered by the editorial department of the *German Students' Gazette* for the best students' song has been won by a Dresden lady.

—An exchange tells us that there are thirty-one colored students in the Freshman Class at Yale. Of these, seven are students in law, eleven divinity, and the remaining thirteen medicine.

—The members of the Cornell Faculty are having a great deal of trouble in enforcing the fifteen hour rule, by which no student can take more than fifteen hours a week, unless by special petition.

—Sixty Harvard Freshmen have dropped their Latin, eighty their Greek, and one hundred their mathematics. None of them have dropped their baseball or boating, however, and college culture is safe.—*N. Y. Sun.*

—The new college in charge of the Fathers of the Society of the Holy Ghost at Pittsburgh, Pa., was dedicated with great ceremony, on Sunday afternoon, the 3d inst. It is a large and commodious five-story structure, and designed especially to provide for the higher education of the youth of Pittsburgh and vicinity.

—Of the students who graduate at the German gymnasias and enter the universities, only two-thirds of one per cent. are under seventeen; five and a half per cent. only are as young as seventeen; nineteen per cent. are eighteen; nearly twenty-eight per cent. are nineteen; nearly twenty-five per cent. are twenty, and twenty-three per cent. are over twenty.

—The public hears from time to time of a discussion over the question of public worship at Harvard University. In point of fact, there are at present no regular Sunday services in the college chapel. During the winter an occasional discourse was given. Attendance upon some church on Sunday is no longer requisite, but by a recent decision compulsory attendance upon morning prayers in the college chapel is continued.—*N. Y. Sun.*

NOTRE DAME SCHOLASTIC.

Notre Dame. May 16. 1885.

The attention of the Alumni of the University of Notre Dame and others, is called to the fact that the NOTRE DAME SCHOLASTIC has now entered upon the EIGHTEENTH year of its existence, and presents itself anew as a candidate for the favor and support of the many old friends that have heretofore lent it a helping hand.

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The Editors of the SCHOLASTIC will always be glad to receive information concerning former students and graduates of the University.

—It has been officially announced that at the conference of prelates held in Baltimore last week it was decided to locate the new Catholic University in the city of Washington. Bishop Ireland, in a sermon preached in Washington last Sunday, said that the capital had been agreed upon because it possessed greater literary, scientific, philosophical and political advantages than any other city in the country.

—On last Thursday evening, the members of the St. Thomas Aquinas' Academy held their regular "Circle," or public debate. A large number of visitors, including the Faculty and students, were present and manifested their attention and interest throughout the whole proceedings. The thesis was "The Immortality of the Soul," defended by John W. Guthrie, '85; his opponents were John D. Wilson, '86, and F. H. Dexter, '86. The "defender" opened the debate in the usual manner, by stating his subject and reading his thesis. The paper was comprehensive, embodying in its substance a number of irrefutable arguments which

were so well handled as to make the thesis clear and evident, and, by a direct appeal to reason, to establish its truth. He dwelt particularly upon man's nature and God's infinite wisdom and justice, and insisted upon a necessary sanction to human actions.

At the conclusion, the objectors immediately attacked him in his stronghold with the sharpened weapons of skepticism. Many of the objections advanced appeared formidable and dangerous, and in the hands of a wary antagonist were calculated to inspire fear and hesitation. These were, however, successfully parried by the defender.

After the debate, Very Rev. Father General made a few remarks on the importance of the subject just discussed, and recommended it to the attention of students in general. Rev. Father Walsh expressed his satisfaction at the manner in which the debate was conducted, and considered such exercises most useful to the members of the Philosophy Class and to others who might attend them. A great interest was exhibited by the visitors, and they departed, well satisfied with the last debate of the "Circle" of '85.

A New Book.*

Apart from the sensationalism with which biographical sketches are often spiced—but which is disdained, or rather has been unthought of, in the narrative before us—the story of "A Troubled Heart" is one of the most attractive, and certainly one of the finest, pieces of biographical writing that has appeared on either side of the Atlantic for many a year. Published anonymously, the author's style betrays him. It is too marked, too clearly characteristic of one who has made himself such an honorable name in English literature that selections from his writings are ranked with some of the best things penned by Thackeray, Dickens or Mallock, to allow him to pass unrecognized.

The story of "A Troubled Heart" is, we think, the best of this author's productions. In the others—those which have won him such honorable distinction from critics and competent judges of thought and style—he evidently wrote to please the public; here he writes to please himself, to relieve an overflowing and gladdened heart of some portion of the joy with which it was inundated after his reception into the Church. We are credibly informed that this story would never have been given to the public had not the urgent solicitations of a friend prevailed in securing it for *The Ave Maria* previous to its appearance in book form. Even now it appears without initials or other clue to its authorship except the style.

We have said that in his other works the author wrote with a view to please the public,—here, to please himself, to give free vent to his feelings,

* "A Troubled Heart; And How it was Comforted at Last." Notre Dame, Indiana: Joseph A. Lyons, publisher, 1885. 178 pages. Cloth, \$1.

without fear of failure, and therefore without bias.

What would please the bulk of American readers can readily be inferred from the character of the books that have become popular, of the authors that have acquired fame of a certain kind—transient it may be, but at the same time a remunerative fame, while better writers lived in poverty and neglect. Carlyle somewhere says that England is composed of ten million of human beings, *mostly fools*; we might with equal truth say that the United States is composed of 50,000,000 of similar human beings—*mostly fools*, with a fool's appetite in literature, if we may judge from the nature of their favorite pabulum. Newman's "*Apologia*," written by the greatest living master of the English language, and which so deftly turned the tables upon his traducer, Charles Kingsley, that it caused him, although one of the most prominent and popular men in England, to take a sudden flight, to exile himself from home and friends for more than a year,—Newman's "*Apologia*" has not been read by one American in a hundred. The same might be said of Dr. Brownson's works, including his autobiography, "*The Story of a Convert*,"—a convert whom Lord Brougham extolled as "the master mind of America," while the ninety-nine out of a hundred American readers, "*mostly fools*," are in ecstasies over the biography and writings of a woman of more than doubtful character.

The story of "*A Troubled Heart*," like Brownson's autobiography, is the story of a strong mind in search of truth, seeking it everywhere except where it was to be found; troubled in the search, and fain to turn back at times, but comforted at last in finding more than it sought. Some who take up the book will read it for the style—if they have a cultivated taste—and read it to the end, whether they will or will not; others will read it for the matter, and may find in the author a kindred spirit and a guide; and all must read it with pleasure.

A Battle Won. (?)

Science for April 17th contained an article on "The Part Played by the Cell in Living Organisms"; a subject of particular interest to us, as it forms one of the specialties of our studies. We read it therefore with a great deal of pleasure, which was greatly augmented by the fact that it presented a concise review of the important work on "Cellular Biology" by Canon Carnoy, Professor of Cellular Biology in the University of Louvain, and whose course of Biology it was our privilege to follow, during the year 1882 and 1883. The writer of the article in question pronounces an appreciative and just judgment upon the importance of the work of Carnoy, which, when completed, will certainly prove a mine of study for the Cellular Biologist, no work of the kind having thus far appeared in the English language. Whilst we agree fully with the writer, we cannot help calling atten-

tion to the concluding paragraph of his paper. It reads as follows:

"While we heartily commend Canon Carnoy's book for its scientific merits, we think that it has another claim to the attention of all who are interested in the progress of human thought: it marks the close of an epoch. Written by a professor in a Catholic university, in a Catholic country, and, utilizing and accepting as it does the results attained by the best biological workers and thinkers independently of all theological prejudice, it is a sign, among many, that modern biology has won its battle. There will still be occasional echoes of the struggle, and we may, for some time to come, meet such instances of persecution as that to which Professor Woodrow was recently subjected; but the war is over. The religious world in general recognizes daily with greater clearness that science is not necessarily irreligious; and that the conviction that our universe has been developed and is governed in accordance with immutable (?) laws, is compatible with belief in an all-wise Law-giver."

We might venture to remark that the writer, in giving great credit to Professor Carnoy, seems to lose sight of what he has already said. Why is he so surprised at the doctrine of Carnoy upon the nature of the cell and cell-life when all those men he mentioned as marking the grand epochs in the history of the doctrine concerning the cell, its nature and properties, are Catholics? Malpighi, whom he mentions as the first one to recognize "that vegetable cells are distinct, opposed closed sacs," was attached to the court of Rome and became the physician of the then reigning Roman Pontiff—a reward for his great scientific discoveries. Was not Fontana a Catholic, who, in 1781, published his researches? Turpin, Mirbel, Dutrochet and the immortal Schwann, of whom Tyndall says in his preface to the recently published "*Life of Pasteur*," "that he was a man of great merit, of whom the world heard too little." Anyone acquainted with the history of Schwann will not be surprised at this. Schwann was a stranger among his friends, as he had been exiled from Germany on account of his religious convictions, which were Catholic. He held a professorship in the university of Liège, and died on the threshold of the country that gave him birth but would not recognize him as its child.

It is not our purpose here to find fault with the writer in *Science*; but we would advise him and all those of his opinion to devote some time to the study of the history of science, and they will find that Catholic scientists are strongly represented wherever true science is to be found. Certainly, the Catholic scientist has a great aversion to hypotheses and theories received with such enthusiasm by many, and especially when these theories are represented by their defenders as being in opposition to some dogma of revealed religion.

A careful reading of a lecture by Rev. J. A. Zahm, lately published in the *SCHOLASTIC*, on "What the Church has Done for Science" will be worth the time spent in its perusal. Is it not a shame to be obliged to correct the ignorance of would-be leaders of science on the most elementary questions of Catholic theology? Read the following statement which we made in the *Catholic Quarterly Review*, for October 1877, in an article on "Professor Huxley and Evolution," and judge

on which side the bigoted battle of modern Biology began:

"The doctrine of evolution (excluding ideas respecting man's soul—that does not necessarily belong to the theory) stands in regard to Holy Scripture just as, or nearly as the doctrine of Galileo, and, therefore, we must not reject evolution on religious grounds, but mainly see if it agrees with science. No doubt there are among Catholic scientists some who accept this theory, and this without forfeiting their religion. The infidel upholders of the theory thought—according to Prof. Huxley's own words—that it held *'the position of complete and irreconcilable antagonism to the Church, which is,'* he says, *'one of its greatest merits in my eyes.'*"

Shame on such odious and bigoted dispositions of a man like Huxley! We cannot suppose ignorance to be the cause of this statement, but, from the mode of stating, we would judge it rather to be malice and bigotry. In the same article we write:

"And a similar, though less striking theological prejudice is exhibited by Mr. Darwin. He tells us in his *'Descent of Man'* that in his *'Origin of Species'* his *first object* was to show that species had not been separately created, and he consoles himself for the admitted error by the reflection that *'I have at least, as I hope, done good service in aiding to overthrow the dogma of separate creation.'* We are pleased to tell Mr. Darwin that there never was a dogma given by the Church of a separate creation."

We stated further in the same article:

"To the ignorant, science and religion seem to disagree at the present time, but only to the ignorant or those who are prejudiced; that is, those who endeavor to make science conflict with religion (Huxley and Darwin, etc.) but who, when not falsifying *one or both*, can never succeed. Between science and religion there cannot be any contradiction. Science, the volume of creation, is the best commentary on the volume of Revelation, and the greater our knowledge of both, the better are we enabled to perceive that they both come from the self-same Creator, for it is impossible to find a vestige in the one to contradict an expression in the other."

The writer refers to "a battle won." We would ask him what battle? Or, if he likes the question better as stated in the following words: Who commenced the battle? By referring to the works of such writers as Huxley, Darwin, Haeckel, etc., he may see the odious statements made by those writers against the dogmas of revealed religion. The battle was not in the field of science, into which the theologian never enters. As long as the scientist remains within the bounds of science he need not fear an attack from a *Catholic* theologian; but as soon as the scientist tries to be a theologian and to explain the dogmas on the principles of science, who then can blame the theologian for defending his own ground? When Copernicus—a canon of the church of Warsaw—taught that the sun was the centre of the solar system and that the earth moved around it in an orbit, he was not molested or prosecuted by the Inquisition; but when Galileo mixed the theory up with revealed religion, he was brought before the court of the Inquisition and censured, and ordered not to teach his doctrine as having anything to do with revealed religion.

The case is similar with most of the modern biological questions. Revealed religion does not profess to teach man on these questions, they can only be explained by their own principles, and

have nothing in common with the principles of the dogmatic proofs of revelation.

From this the writer of the article in *Science* may see that he has arrived rather late at the conclusion expressed in the paragraph mentioned above; but we hope that he will be followed by many others to recognize what he so beautifully expresses in the concluding sentence, when he says: *"that the conviction that our universe has been developed and is governed in accordance with immutable laws, is compatible with belief in an all-wise Law-giver."*

A. M. KIRSCH, C. S. C.

Exchanges.

—*Cap and Gown*, from the University of the South, has donned a new and handsome cover. The editors complain bitterly of the lack of appreciation and support of the paper by the college authorities and the students at large, but they get out a fairly well-edited paper, nevertheless—chiefly at their own expense, it appears. The *Cap and Gown* deserves better treatment.

—The *Ariel*, from the University of Minnesota, makes a fine start under the management of its new board of editors. The literary work is creditable throughout. In the current issue, the articles entitled respectively "Motives," and "High License and Prohibition," are sensibly conceived and ably written. The writer of the latter article is a sound logician and a good writer.

—The *University Review*, from Kansas, is above the ordinary run of college periodicals in many respects. A new visitor to our table, we think it will be a welcome one. After running wearily through pages upon pages of weak literary attempts, in papers coming from colleges from which much better work is naturally expected, the essays of such a paper as the *University Review* are a positive relief. We would like to see more of such earnest work.

—The *Chronicle*, from the University of Michigan, comes out manfully in defence of Prof. Winchell against some of the Michigan newspapers that have been loudly decrying him. Vice-President Wilson once said that the newspaper press could destroy any man's character in three days, and he feared that the time would come when no respectable man would run the risk of its fire by presenting himself, or accepting the nomination for a position of public trust. Prof. Winchell's may be a case in point. We are not conversant with the facts, but if the *Chronicle's* statement of the case be a true one, the Professor holds a strong and an honorable position.

—The *Paper World*, a splendid 48-page monthly magazine, published by Messrs. Clark W. Bryan, & Co., Holyoke, Mass., is undoubtedly the handsomest and best edited periodical of its kind in the English language, and probably in any language. Besides its well-written trade sketches, which are also handsomely illustrated, the personal, the liter-

ary and news departments are stocked with a large variety of information upon all manner of subjects, including criticisms of books, literary and business gossip, etc., etc. Even the advertisements—and the *Paper World* is well patronized in this line—are models in their way, being presented in the best style of the typographic and engraver's art. This periodical is a sort of *Century* magazine in the trade line.

—On the 2d of May the publishers and editors of the *Fortnightly Index* and the *Educational News* merged the two papers into one, which now appears as *The University*, a periodical that, issued fortnightly, will take a wider scope than either of its predecessors. With no official connection with any educational institution, the new periodical is under the control and is mainly filled with contributions from university professors, and is open to the discussion of leading questions of the day in politics, religion, education, science, literature and art. So far as we have seen, *The University* is wholly free from partisan and sectarian bias, and pursues its course in a thoroughly catholic spirit. The subscription price is \$2.50 a year, but subscribers to other periodicals are allowed club rates that give a material reduction. Exchanges and matter for publication should be sent to the managing editor at Madison, Wis., and books for review to the literary editor at Ann Arbor, Mich.

—The following, from *The Concordiensis*, Union College, N. Y., speaks for itself and for us too:

"The only thing the NOTRE DAME SCHOLASTIC has in common with other college papers is an exchange column. The SCHOLASTIC seems more like an independent literary magazine, or a church organ, than a college paper; and for that reason it seems hardly just for it to make some of the criticisms it does. The same propriety with which the SCHOLASTIC calls the poetry of some of the best eastern journals 'moonshiny rhymes,' would allow us to dub the poetry of the SCHOLASTIC as cast-iron verse, or indigestible effusion. We are well aware of the wrath this may bring upon our heads, for the SCHOLASTIC is notorious for its ability to 'sit on' too critical papers."

Oh no, dear *Concordiensis*, you need not fear; we will not empty any vials of wrath upon your head—not this time at least—because we have no wrath to empty, and there is no occasion for it even if we had it. When seeming to take us to task for our criticism of the "moonshiny rhymes" it is clearly evident that you do not mean what you say. Of course we can hardly blame your weakness in wishing to make yourself "solid" with the writers of the "moonshiny rhymes," who are legion, and whose friendship may in your case be worth something, but if you tried your best you could not have paid us a better compliment than by saying "the SCHOLASTIC seems more like an independent literary magazine" than a college paper. We cannot return the compliment just now, but we hope you will give us an early opportunity to do so. We regret that we cannot speak of your poetry, because you haven't any; but when you get something worthy of notice we intend to speak of it "right out in meetin'," in our customary way, if we mention it at all. We never attempted to dignify the "moonshiny rhymes"

with the title of poetry—that would be mockery; the terms "cast-iron verse and indigestible effusion," which you suggest, although unphilosophical and illogical, may serve your purpose with the rhyme-sters of the "Eastern journals," yet the fact that you term it poetry shows, nevertheless, that it possesses some merit in your eyes. If you could not appreciate the originality and humor of "Justin Thyme" we should have a very poor opinion of you; would, in fact, think you a dried-up cynic, a veritable modern Diogenes in his tub, who couldn't laugh if it were to save his life. And as for Marion Muir, to whom the SCHOLASTIC is so greatly indebted, some of the finest verses that ever graced *Scribner's Monthly*—now the *Century Magazine*—were from the pen of this gifted young Rocky Mountain poet. Your closing remark, *Concordiensis*, may be true enough, for aught we know. You say that the "SCHOLASTIC smiles benignly on a paper which compliments it, and bestows a look of pity and contempt on another rash enough to criticize." Very likely. That would be natural, and eminently proper. What else could be expected from the bland and gentlemanly editors "of an independent literary magazine, or a church organ?" The only ground for question is, were our criticisms just? Were the papers upon which we "smiled benignly" deserving or not?—and were the articles that we censured deserving of censure? If not, the *Concordiensis* has the odds of the SCHOLASTIC, and a fine subject on which to hang its tropes and figures. We are willing to try the ordeal. Call again, *Concordiensis*; always glad to see you.

Obituary.

PROF. JOHN P. MCCORMACK, A. B.

Prof. John P. McCormack, for the past two years engaged in teaching in the University, died at South Bend, last Saturday afternoon, after a lingering illness. The Professor was an efficient instructor, and, though of a retiring disposition, had endeared himself to his pupils and the many friends he had made at the University. The funeral took place on Monday morning, Rev. President Walsh celebrating *Requiem* Mass, at which an impressive discourse was pronounced by the Rev. P. P. Cooney, C. S. C. The remains were placed in the cemetery at Notre Dame. May he rest in peace!

MR. THOMAS DALY.

We regret to record the death, on the 13th inst., of Mr. Thomas Daly, formerly of Rochester, N. Y., but who for the past five or six years had resided at Notre Dame. He was a man of fine social qualities and varied accomplishments, and had made many friends, old and new, among the inmates of Notre Dame. He was the father of Mr. T. A. Daly, of the Class of '66, to whom, and to the other members of the afflicted family, we extend our heartfelt sympathy. May he rest in peace!

Personal.

—Eugene Wile (Com'l), '82, holds a position with the Hamburger and Garrity Co., Chicago.

—Rev. W. F. O'Rourke, formerly a Professor in the University, is now Rector of the Church of the Holy Angels, Cincinnati.

—Rev. D. J. Spillard, C. S. C., '64, Master of Novices at Notre Dame, has been quite ill for the past few weeks, but is now, we are gratified to state, happily convalescing.

—Among the visitors during the week were: T. H. Macke, Cincinnati, O.; R. T. O'Connor, St. Paul, Minn.; Wm. Devine, City Treasurer, Chicago, Ill.; Mrs. J. A. Burtis, Chicago, Ill.; Mr. J. Reid, Dubuque, Iowa; Mr. A. G. Peil, Racine, Wis.; Mr. and Mrs. Thos. Nester, Saginaw, Mich.; Mrs. Mooney, Chicago, Ill.; Mrs. McCourt, Oshkosh, Wis.

—Very Rev. Father Sorin, Superior-General of the Congregation of Holy Cross, returned from Rome last week, making his forty-fifth trip across the Atlantic. We congratulate the venerable founder of Notre Dame, and promoter of devotion to the Mother of God in this country, upon his happy return and join with his large family in rejoicing over his continued robust health.—*Colorado Catholic*.

—The motion for a new trial in the case of A. M. Bloom v. John Dean Caton, was argued in Chicago on Saturday last. Prof. Hoynes and Hon. John Gibbons, of Chicago, were the plaintiff's attorneys, while the defendant, a former Justice of the Supreme Court of Illinois, was represented by Messrs. Paddock, Towne and Caton. The defendant felt confident of success, and was totally unprepared for the decisive defeat he sustained. The jury gave the plaintiff a verdict for \$4,000. A motion for a new trial was then entered on behalf of Judge Caton, and the court fixed upon Saturday last as the time for arguing it. Mr. Gibbons and Prof. Hoynes again appeared for the plaintiff. After argument the court overruled the motion and ordered judgment for \$4,000 to be entered on the verdict in favor of the plaintiff.

Local Items.

—Keep off the grass!

—Don't climb the trees!

—Oh! gentle spring, why dost thou linger?

—"Now Beginneth the Hot Spell."—*Statius*.

—The Philopatrians threaten to astonish the natives.

—Our Astrologer predicts warm weather in the near future.

—Oration day promises to be a treat to lovers of eloquence.

—It is rumored that the fine weather has come to stay; so mote it be.

—Forty acolytes took part in the services on the Feast of the Ascension.

—The Temperance Society expect to take a trip to the Farm ere long.

—Master Felix Mainzer, of St. Paul, Minn., is the latest arrival among the Minims.

—The St. Cecilians are busy copying the parts of a play to be rendered next month.

—The Juniors bid fair to become worthy rivals of their elder brethren, the Seniors, in the diamond.

—The new degree of "Doctor of Science" offers additional inducements to the Post-Graduate.

—The Literature Class spent last Tuesday at the "Red Mills." A detailed account will appear next week.

—The Band presented a fine appearance and played well in the procession to and from the church on last Thursday.

—Signor Gregori has nearly completed a magnificent full-length portrait of his Grace of Baltimore. The canvas is eight feet by five.

—Professor Stoddard and his Literature Class took a pleasant ramble in the country Tuesday, passing a portion of the day on the banks of the picturesque St. Joe, like true disciples of Izaak Walton.

—The "Cashier" was given five years, but he narrowly escaped from the Court-room with his life, owing to a commotion amongst the jury, which came near resulting in the demand for "brick bats for two."

—Last Tuesday afternoon the Junior nines played a game of base-ball in their new suits. The large number of spectators attested unusual interest in the sport. The score was: "Reds," 12; "Blues," 11.

—The St. Cecilians will probably appear in a drama some time near Commencement; the other societies may or may not appear, but it is suggested that the Euglossians give an elocutionary treat about the same time.

—The dreadful plague, which creates such havoc among students, is travelling across the country. Already it has appeared in the gymnasium and on the campus, and, must we say it, surreptitiously in the class-room.

—The debate in the "Academy" Thursday night was largely attended and well worthy of the attendance. Very Rev. Father General, Rev. President Walsh, Fathers Granger, Stoffel, Robinson and Regan were present.

—A short time ago the moon appeared of a sanguineous hue to a certain community, but oil has been poured upon the troubled waters; the moon now sheds a silvery light upon the peaceful surface, and the smoke from the pipe of peace curls above the wig-wam.

—During the month of May, sermons are preached on four evenings in the week by Rev. Father Cooney. On Thursday evening there is solemn Benediction of the Blessed Sacrament; on Saturday the Litany of the Blessed Virgin is sung, followed by the recitation of the Beads.

—Workmen have been busily engaged during the week in making the excavations for the foundations of the extension to the church. This new addition, which will complete the original design of the sacred edifice, will form a chapel under the invocation of "Our Lady of Good Counsel."

—A life-size bust portrait of his Grace the Archbishop of Chicago, has been placed in the Bishops' Gallery—a gift from Rev. T. O'Sullivan, '58, now of Irondale, South Chicago. An elegantly-framed portrait of Mgr. Maes has also been added to the collection. It was presented to Professor Edwards by Mr. P. P. McVeigh, of Covington, Ky.

—The 9th regular meeting of the Sorin Literary and Dramatic Association was held in the Lemonnier Library on Monday, May 11th. The President of the Society, Prof. J. Edwards, after the business of the meeting was transacted, entertained the members with an instructive visit to the library. The Sorins offer their kind President a vote of thanks for the treat he so kindly afforded them.

—Do you see that solemn-looking young man in the corner, the one who has a small pyramid of legal works before him and whose mind seems to be far away—except when he lowers his eyes upon the half-filled pages before him, and then mutters, in broken accents, "eight pages,—nine pages—whew-u, *ten pages more!*"? Gentle friends, that is the Law "Grad." preparing his Class Essay.

—Our friend John says that early one morn during the week, he observed a lone fisherman industriously pursuing his avocation on the bank of one of the lakes. Nothing extraordinary in that. But, late in the afternoon, John happened to pass near the aforesaid fisherman, and, observing but a few little "minnies" on his line, ventured the question: "Say, how much did you catch?" To which came a reply in accents from an unknown tongue: "Me no speak Inglis."

—Yesterday (Friday) the first communicants enjoyed a holiday and picnic on the old Scholastic grounds, now known as St. Aloysius' Home. No better place than this beautiful retreat—the most charming spot amid all the beautiful scenery of Notre Dame—could have been selected for a day's recreation. And this fact, together with the good things in the way of refreshments and various amusements provided by the efficient Director of the Altar Society, Mr. Thillman, C. S. C., may account for the joyous reports of a "grand old day."

—An interesting and exciting trial was held before Judge Hoynes, in the University Moot-court, on the 10th inst. D. Byrnes and Chas. Finlay appeared for the State; J. D. Willson and M. Burns for the prisoner. The witnesses for the prosecution were J. Conlon and H. A. Steis; for the defense T. E. Callaghan and P. J. Goulding. The case was ably conducted, and the attorneys displayed considerable eloquence in their pleas to the jury. A verdict of "guilty" was returned, and sentence of five years imposed. The prisoner's coun-

sel moved for a new trial; which motion will be argued on the 16th inst. D. Rice acted as clerk, G. De Haven as reporter, and F. Burke as sheriff.

—On Tuesday last a game of baseball was played between the "Star of the East" and the "University" nines. Great interest was taken by the players, and as the game progressed, the struggle grew hotter and more exciting. A noticeable feature was the out-fielding of both nines, and some heavy batting. A few positions were not very strongly supported, but this deficiency was in part made up for in other positions. The following is the score:

STAR OF THE EAST.		R.	O.	UNIVERSITY.		R.	O.
McCabe, c;		1	3	Guthrie, l. f.		2	3
Porter, p;		0	5	V. Burke, s. s.;		2	1
C. Combe, l. b.;		1	4	McNulty, c., 2d b.;		1	4
Hotaling, l. f.;		2	3	Dolan, 3d b.;		2	2
Tully, 3d b.;		1	2	Harless, r. f.;		1	4
Coghlin, c., s. s.;		2	3	McGill, l. f.;		1	3
Nester, 2d b.;		2	3	Loomis, p.;		0	4
Murphy, c. f.;		1	3	Chapin, c. f.;		1	3
Browne, r. f.		1	1	Kolars, c.		0	3
Total.....		11	27	Total.....		10	27

INNINGS:—	1	2	3	4	5	6	7	8	9
UNIVERSITY:—	2	1	0	3	0	0	1	1	3=11
STAR OF THE EAST:—	1	1	0	1	3	0	4	0	0=10

—Last Thursday—the festival of the Ascension of our Lord—witnessed the solemn and impressive ceremony of the First Communion of twenty four students. During the three days previous they had prepared themselves for this the greatest act of their lives by retreat and prayer under the careful direction of the Rev. Prefect of Religion. At eight o'clock the young communicants, attended by the clergy, were escorted processionally by their fellow-students to the church. Solemn High Mass was celebrated by the Rev. President Walsh, assisted by Rev. Fathers Stoffel and Regan as deacon and subdeacon. Mr. Thillman was Master of Ceremonies. After the Gospel, an eloquent and appropriate sermon was preached by the Rev. P. P. Cooney. The acts before Holy Communion were read by Masters F. Crotty, J. Baker, F. Riel and F. Noonan. In the afternoon, at two o'clock, solemn Vespers were sung, during which another discourse was pronounced by Father Cooney, followed by the ceremony of the "Renewal of the Baptismal Vows." The Acts of Consecration to the Blessed Virgin were read by Masters F. Dunford and J. McNulty. The names of the first communicants are as follows: C. Mooney, A. Williamson, M. McCourt, R. Inderrieden, E. Adams, A. Nester, J. Piero, C. Campau, F. Murphy, A. Grimes, J. Bull, J. Baker, F. Crotty, F. Dunford, F. Chute, F. Piel, F. Noonan, J. McNulty, L. Tracy, I. Falvey, Frain, Grimes, Smith, Bastable.

—Prof. Edwards has received the following articles for the Historical Museum: From Judge Hagan, of Chicago, per Bro. Paul, large silver coin, 8 R., Republica del Centro America 1846; large copper coin, 8 Ps., Moneda Provesional del Estado de Honduras; Coins of the Republic of

Gautemala and two antique Spanish crosses; from the Chamber of Commerce of the State of New York, per Dr. Richard-H. Clarke, a copy of the silver bronze medal struck by the American Numismatic Society to commemorate the centennial celebration of the evacuation of New York by the British; from Rev. Father Cooney, photograph of the Bunker Hill Monument and views of the eight National Pictures in the Rotunda of the U. S. Capitol at Washington; from Mr. Griffin, of Philadelphia, a set of the *I. C. B. U. Journal* containing his valuable historical articles on "Catholicity in Philadelphia."

—The Juniors' 1st nine and a picked nine of the Seniors played an exciting game of baseball on the afternoon of the 10th inst. The Score being 11 to 11 at the end of the ninth inning, they were compelled to play another inning, when the Seniors scored three runs and the Juniors one, making the score 15 to 12 in favor of the Seniors. The Seniors won by the superior batting of McCabe, who made two home runs and brought in four men, also through an error when Dorenberg failed to come home from third base in the ninth inning. The Juniors' batting was excellent, Menig, the catcher, having only one pass-ball, and Benner, the pitcher, striking out eight men and having no errors. Cooper, the Juniors' 1st baseman, distinguished himself by his excellent batting and general good playing. Dorenberg, the short stop, also knocked a couple of two-baggers. The following is the score:

SENIORS.	R.	O.	JUNIORS.	R.	O.
McCabe, c.;	4	1	Benner, p.;	2	3
McGill, l. f.;	3	2	Dorenberg, s. s.;	1	2
Dolan, s. s.;	1	4	Myers, 2d b.;	1	4
Murphy, c. f.;	0	6	Courtney, l. f.;	2	2
Goodfellow, p.;	0	5	Menig, c.;	2	3
Chapin, 1st b.;	0	4	Cooper, 1st b.;	4	2
Cusack, r. f.	2	3	Cartier, c. f.;	0	4
Rahilly 2d b.;	3	2	Wabraushek, r. f.;	0	4
Tully, 3d b.	2	3	Johnston, 3d b.	0	6
Total.....	15	30	Total.....	12	30

—We have lately seen some specimens of Mr. O'Dea's skill on the Remington Typewriter that, we think, would in competition entitle that gentleman to the championship of America in artistic typewriting. The printed book of Mr. Curtis Haven, of Philadelphia, is undoubtedly very good, and has been adopted by the managers of the Remington Typewriter Co., but these specimens from the hand of our worthy instructor, Mr. O'Dea, surpass any typewriter work that we have yet seen. No one but a genius could for a moment imagine that such combinations could be effected on the Remington; but Mr. O'Dea has done the work, and although, with his accustomed modesty, he makes no ado about it, the work speaks for itself. That was our opinion of his specimens as soon as we saw them, and we find that we were not alone in entertaining that opinion. Mr. Crandall, the General Manager of the Remington Typewriter Company in Chicago, who has just had a glimpse of Mr. O'Dea's work, says that he "Can-

not overstate his admiration of the work"; that "it is an excellent example of regard for neatness, of artistic taste, and of the possibilities of Typewriting." That is just what we think of it. We beg Mr. O'Dea's pardon for surreptitiously making use of Mr. Crandall's letter; but we could not help it.

Roll of Honor.

[The following list includes the names of those students whose conduct during the past week has given entire satisfaction to the Faculty.]

SENIOR DEPARTMENT.

Messrs. Arce, Ancheta, A. A. Browne, Baca, Becerra, M. Burns, Breen, F. Burke, V. Burke, Conlon, Walter Collins, Chapin, Conway, Crawford, Creel, Cusack, De Groot, Dwan, Dexter, Dickerson, Estrado, Finlay, Flynn, Goulding, Garcia, Horn, Hamlyn, Harless, Halligan, Howard, Hausberg, Hutchison, Johnston, Kolars, Kleiber, Keys, Livingston, Loomis, McCabe, McMillian, McGuire, Meyer, McErlain, McCartney, Mathers, Miller, W. Murphy, McNulty, H. Paschel, C. Paschel, Perley, Padilla, H. Porter, Phillips, T. Ryan, Roth, G. H. Smith, Sheridan, Shaffer, Snapp, Triplett, Tully, Jno. Troy, J. S. Troy, W. Williams, Wagoner, White, Woodbridge, Werst, Zeitler.

JUNIOR DEPARTMENT.

Masters Arts, Adams, Amoretti, Borgschulze, Benner, Berthelet, Baur, Bastable, Congdon, Clarke, Chamberlain, G. Cartier, Cavaroc, Cleary, Chute, Courtney, Dempsey, Dorenberg, Donnellan, Dillon, Daly, Darragh, Devine, Emmons, Finckh, Fehr, Flood, Frain, L. Grever, Garrity, Grimes, Hoyer, Hemisbaugh, Harris, Howard, Hibbeler, Holman, Houlihan, Hagenbarth, Johnson, Kelly, Kegel, Kenny, Luther, F. Long, Loya, Lewis, Levin, Martinez, Mulkern, McCourt, V. Morrison, W. Morrison, B. Morrison, R. Morrison, Monschein, Menig, Myers, Mullane, Macke, Meehan, Nester, O'Kane, Portillo, Prudhomme, Porter, Regan, Real, Rattigan, Ruffing, Remish, Reynolds, Rogers, Robinson, Ryan, Rietz, Redlich, Senn, Shaw, H. Smith, Sedberry, Schmauss, Servis, Stubbs, Thurston, Thompson, Vanselow, Wabraushek, Wagoner, Williamson, Weiting, West, Zollars.

MINIM DEPARTMENT.

Masters Adams, Ackerman, Boos, Berry, Bull, Blakeslee, Bloomington, Baker, Crotty, Campau, Cobbs, Chute, Dunford, E. Doss, L. Doss, Ernest, T. Falvey, Grimes, Haney, Hopkins, R. Inderrieden, C. Inderrieden, Jones, E. Kelly, McPhee, Murphy, Morgan, J. Mitchell, Moncada, McCourt, Millard, Mainzer, Mason, McNulty, Mooney, Nussbaum, Noonan, Nester, F. Peck, J. Peck, Piel, Piero, Paul, Perkins, Quill, Ramsey, Salman, Sweet, Scherrer, Stone, Shöneman, Weston, Williamson, E. Falvey.

Class Honors.

[In the following list may be found the names of those students who have given entire satisfaction in all their classes during the month past.]

PREPARATORY COURSE.

Messrs. Jno. Troy, Tully, Triplett, White, Sykes, F. Browne, McMillan, Shaffer, J. Crawford, Estrado, Baca, Spillard, Price, W. Collins, Walter Collins, Snapp, Horne, Conlon, Finlay, De Groot, Williams, Jess, Wiley, Arce, Maguire, P. Prudhomme, Padilla, Becerra, Phillips, Levin, Grunsfeld, E. Prudhomme, Zollars, Martinez, Portillo, Real, Hoyer, E. Grever, McCourt, Nussbaum, Kegel, Senn, D. Ackermann, W. Morrison, Chute, Redlich, Chamberlain, Rebori, P. Wagoner, Benner, Finckh, Warner, Soden, Dougherty, R. Morrison, Sokup, Tarrant, Oxnard, Arts, Eppstein, D. Cartier, Loya, Fisher, Day, Emmons, Wieting, W. O'Kane, Reynolds, Cleary, West, Ewing, Macke, Sedberry, J. Hasson, Amoretti, Flood, Servis, Cooper, Adams, Meehan, Frain, Cleveland, Devine.

Saint Mary's Academy.

One Mile West of Notre Dame University.

True Friendship.

Sweet union of friendship: O, is there on earth
A treasure more sacred, a prize of more worth,
When heart, answering heart, with affection transcends
The cold bonds of time, in the love of true friends?
Change will not estrange them; foes cannot defame,
For friendship—true friendship—is ever the same.

'Tis founded on virtue: 'twas born in the skies;
It is fed by a stream whose clear fountain ne'er dies;
And, sweet though it be with our loved ones to dwell,
It is sweeter by far, when we bid them farewell,
To know they *forget not*; that, steadfast and free,
True souls are united where'er they may be.

O, thrice sacred Friendship, whose strong bond is prayer;
Whose wings are more fleet than the birds of the air;
Whose gracious communings bright angels attend,
To bear golden missives from true friend to friend!
Nay: they never are parted; for bolt, bar or space
Cannot sunder the union of hearts bound by grace.

M.

—The last music lecture of the session was delivered on Saturday before the St. Cecilia Society.

—Fifteen minutes' instructions are given by Rev. Father Cooney, C. S. C., every evening at May devotions.

—Miss Carney, of Marinette, Wisconsin, is visiting her sister, Miss Lizzie Carney, of the 1st Senior Class.

—The badge awarded each week for good deportment was won by May Hopkins, who presented it to Genie Hammond.

—Miss Hattie Van Patten, of Forrest City, Arkansas, a former beloved pupil of the Academy, is paying a most welcome visit.

—At the regular reunion in the Junior department the readers were the Misses Ella Sheekey, Clara Richmond and Grace Stadtler.

—The regular reunion in the Minim department was the occasion of some pretty singing on the part of little May Hopkins. Lola Chapin recited.

—Miss Estelle Horn and Miss Carrie Griffith, of the Second Senior Class, have deserved, and received, 100 in lessons during the entire scholastic session.

—Two beautiful pictures, elegantly framed, of "Our Lady of Good Counsel," and "St. Walburga, Abbess," were presented to their study-hall by the Juniors.

—*Rosa Mystica*, Vol. XI, No. 4, was read at the regular Academic reunion. Editresses: the Misses Barlow, S. St. Clair, M. Ducey, Keenan, Carney and Heckard.

—The Elocution Class of beginners drew for a prize on Saturday. Grace Stadtler, Fannie Hertzog and Cora Prudhomme were equally entitled; the last-named being the winner.

—The Third French Class had, not long since, a very successful competition, which was honored by the presence of the Rev. Father Fitte, of the University, and the Rev. Father Saulnier.

—Those Juniors who have not missed a morning study—through their own fault—since the opening of the scholastic year have been promised a picnic, which will be given sometime this month.

—Beautiful clusters of trailing arbutus are gratefully acknowledged. The thoughtful friends who forwarded them to the Botany Class were, Mrs. Ducey, of Muskegon, Mich., and Miss Kate Sheridan, of Fort Howard, Wis.

—By universal consent, the last issue of *Rosa Mystica* is pronounced to be the best of the year. Very Rev. Father General objected to the announcement that it was the last, and called for another number by June 1st.

—An ice-cream set, leaf-shaped, and painted by the skilful brush of Mrs. Studebaker, of South Bend, is attracting universal admiration from visitors to St. Luke's Studio. The decorations are of Alpine flowers, chiefly from Zurich.

—Rev. President Walsh and Professor Stace, of the University, honored the examination of the class in Trigonometry by being present, and the learned gentlemen expressed their satisfaction with the proficiency exhibited by the members.

—Thanks are respectfully tendered to Prof. J. A. Lyons, for a copy of the beautiful volume just issued at Notre Dame, "A Troubled Heart; and how It was Comforted at Last." The narrative is charmingly related, chaining the interest of the reader from first to last.

—The princesses repaired to the pastoral residence on Friday, and at the hands of Very Rev. Father General the monthly golden prize for politeness was awarded. By vote it fell to Edna Burtis. The princesses are very grateful to Father General for his kindness to them.

—On Friday, Mass was said in the Chapel of Loreto by Very Rev. Father General, and he gave an eloquent though brief instruction to the Children of Mary. The instruction of Monday morning was an impressive explanation of the reason for observing the Rogation days.

—Those who were entitled to draw for the Roman mosaic cross are as follows: Misses Boyer, Erlenborn, Hertzog, Norris, Prudhomme, Richmond, Regan, Sheekey, Snowhook, Searls, Stadtler, Smith and Trask. It was drawn by Ola Boyer, who kindly presented it to Bertha Erlenborn.

—Tuesday will be the month's mind of Sister Mary of St. Cecilia. In the issue of *Rosa Mystica*, read on Sunday evening, a list of names was given of persons who had written in condolence. Extracts were selected from several letters, and one

from the Rt. Rev. Bishop Gilmour, of Cleveland, was presented entire.

—On the Feast of the Apparition of St. Michael, the Society of the Children of the Holy Angels enjoyed recreation from 3 p. m. till half-past five. A bountiful collation was served to them in the Juniors' recreation-hall, thus closing the beautiful festival which had been so auspiciously opened. All attended Mass and approached the Holy Communion in the morning, and, with hearts light and consciences clear, they passed the hours, first in the fulfilment of their duties as pupils, and then in free, innocent pastimes.

—In the room for ornamental needle-work is to be found a wealth of superior embroidery. Two lambrequins done on plush in ribbon and arrasene are very fine. One is of roses, the other of water lilies. The work is by Miss Mary Scully. Alice Gordon has just completed a panel of roses on plush: her twin sister has also just finished a sofa pillow in beautiful water lilies. Miss Alcott's work is as profuse as it is skilful; the table scarf, a table cover, and a novel style of pin cushion, in "Love lies bleeding," are remarkably pretty. Miss Bertha Lauer has nearly finished a charming fire screen—a Bird of Paradise—on satin. The variety, number and perfection of pieces done by Miss Fitzpatrick speak well for her industry. Miss Munger is embroidering a fine piece in strawberries. A sofa pillow on satin in golden rod and sumach by Miss Cox is very handsome.

—Among the many beautiful episodes of life at St. Mary's during the bright spring days, the processions of St. Mark's day and of the Rogation days are far from being the least interesting. There is something peculiarly inspiring, not alone in a poetical sense, but in the deeply serious impression conveyed in the chanting of the Litany, as the long line of Religious and other pious persons pass along the fields, singing the *Regina Cali* as they pause at the far-off rural oratory of "Our Lady of Peace," and then once more at the altar before the Chapel of Loreto. To one unaccustomed to such demonstrations of Christian faith in prayer, there is something like enchantment in the vision presented at six o'clock in the morning, as in the centre of the fair landscape surrounding the Chapel of Loreto are ranged groups of figures, some veiled in white and some in black, while priestly forms in cope or surplice, stand before the statue of "*Mary, the lovely Queen of May*." There, bright flowers in graceful vases are blooming; soft tapers glow and flare with a purling sound in the cool morning breeze, and, echoing far and near, rings out the grand Anthem of the Paschal season.

—The "after-dinner mood" which is conceded to be the best possible guarantee that the cordial assistance of powerful friends will be secure to the applicant for favors, is dependent on conditions, viz., the perfection of the viands which adorn the table. The curriculum of the Senior department has not lost sight of this. Any one who might doubt this fact should partake of the delectable dishes provided by the fair members of the Gradu-

ating, First and Second Senior Classes. The most versatile in talent and aptitude for *culinary esthetics*, is undeniably Miss Munger. The meat, potatoes and eggs cooked by her in St. Mary's kitchen are worthy of a *Chef de Cuisine*. The biscuit manipulated and baked under the supervision of the Misses Gove and Call are worthy of high praises. They were as light as the hearts and shapely as the forms of the artificers. Of the cake-makers, the Misses Ramsey, Barlow, Dunne, Sheekey, S. and L. St. Clair, Bruhn, Keenan, Carney, M. Ducey and Heckard, might each win a medal, were one in this particular branch of the culinary art to be offered. An Angel's food cake, compounded and baked by Miss Bruhn was much praised. A lady—an accomplished judge in such matters—who tasted some silver cake made by Miss S. St. Clair pronounced the dainty morsel as "excellent."

Roll of Honor.

FOR POLITENESS, NEATNESS, ORDER, AMIABILITY, CORRECT DEPARTMENT, AND OBSERVANCE OF RULES.

SENIOR DEPARTMENT.

Par Excellence—Misses M. Adderly, M. Bruhn, Barlow, Blair, Brady, E. Call, Carney, S. Dunne, A. Donnelly, E. Donnelly, M. Dillon, B. English, Fuller, Fitzpatrick, C. Ginz, B. Gove, Griffith, Alice Gordon, A. Heckard, B. Heckard, Hutchinson, Hale, Keenan, Kearney, Kearns, Lange, T. McSorley, A. Murphy, McHale, O'Halloran, O'Connell, Ramsey, Rose, Sheekey, M. Scully, C. Scully, Schulze, Schmidt S. St. Clair, L. St. Clair, M. Shea, C. Schilling, Sharrette, L. Walsh, E. Walsh, White. *ad Tablet*—Misses Cox, Dwan, A. McSorley, Richardson, Thornton.

JUNIOR DEPARTMENT.

Par Excellence—Misses Brown, O. Boyer, B. Erlenborn, F. Hertzog, L. Norris, C. Prudhomme, C. Richmond, G. Regan, E. Sheekey, B. Snowhook, G. Searls, G. Stadler, L. Trask, L. Van Horn. *ad Tablet*—Misses A. Keys, M. McEwen, E. Preston, M. Paul, M. Smith.

MINIM DEPARTMENT.

Par Excellence—Misses E. Blaine, E. Burtis, E. Chapin, M. Hopkins, E. Hammond, F. Johnson, M. Lindsey, D. Lee, B. Muray, A. Schmauss, F. Spencer, S. Van Fleet.

Class Honors.

[The following-named young ladies are best in classes—according to competitions held during the month.]

English History—Misses Barlow, A. Heckard, Carney, Munger Helping, L. St. Clair; Algebra—Misses A. Shephard, Horn, Wolvin, Griffith, Fuller, L. St. Clair, Cox, Morrison, McHale, E. O'Connell, A. Murphy, C. Scully, B. Snowhook, G. Regan, Rose, Brady, Kearns, B. Heckard, Fehr, T. McSorley, L. Trask, Taylor, C. Ducey, Wallace, Carmien, Schmidt, Blaine, A. Donnelly, Keys, Van Horn, M. Morse, N. Donnelly, Dillon; History—Misses Horn, Wolvin, Morrison, N. Sheekey, Kearney, Kearsey, Dillon, Adderly, Keys, A. Murphy, E. O'Connell; Physical Geography—Misses White, A. English, M. Shea, Barry, G. Stadler, F. Hertzog, M. Smith, C. Servis, L. Hutchinson, B. Erlenborn, N. Brown, A. Malbœuf; French—Misses N. Kearns, T. McSorley, C. Lang, E. Sheekey, S. Norris, M. McEwen, F. Hertzog; Geography—Misses McEwen, N. Quill, S. Norris, B. Murray; Grammar—Misses M. Shea, M. Blair, L. Hutchinson, A. English, A. McSorley, M. O'Halloran, M. Barry, E. Balch; Arithmetic—Misses M. Shea, M. Blair, A. White, G. Searls, G. Stadler, M. Smith, F. Hertzog; German—Misses C. Lang, E. Taylor, G. Stadler, Bubbs, A. Donnelly.