say, Sir James Paget declares to be almost faultless at the present time. When he broke his own tendo-Achilles, he was led to study the subject, and to introduce a new method of treatment of the rupture. Sir John Lubbock is equally indefatigable. His record of observations on the social Hymenoptera is most fascinating, and one is in doubt whether most to admire the patience and industry of the ants, the bees, and the wasps, or the patience and industry of their observer.

Some reverend gentlemen, besides engaging in the duties of their calling, have amused themselves by inventing machines. The Rev. Dr. Cartwright, incumbent of Brampton, near Chesterfield, was the most extraordinary of these inventors. He not only invented the power-loom, which has had so remarkable an influence on the manufacturing supremacy of England, but the wool-combing machine, the brick-making machine, the rope-making machine, and various improvements in the steam-engine. The Rev. Patrick Bell, minister of Carmylie in Forfarshire, was another of these clerical inventors. The reaping machine was the issue of his spare hours. It was perfectly successful when invented; but hand-labor was at that time cheap, and it was not adopted. It was received with acclamation in America, where hand-labor was dear; and after the lapse of nearly half a century it was returned from America to England and Scotland, and is now in general use.

Professional inventors, such as Mr. Nasmyth, the inventor of the steam-hammer, and Mr. Siemens, the inventor of the electrical engine, have turned, for variation of study and pursuit, to other subjects. Mr. Nasmyth has applied himself to astronomy; has made his own telescopes, studied the sun and the moon, and achieved much distinction in astronomical science. So have Mr. Lassell and Mr. De la Rue—the one a Liverpool brewer, the other a London publisher. Mr. Bessemer, the inventor of Bessemer steel, has also applied his wonderful talents to the same subject.

I am indebted for the following anecdote to Mr. Nasmyth, who is not only a great inventor and scientist, but an extraordinary repertory of anecdote. It relates to Dr. Adam, late Rector of the High School of Edinburgh, the author of *Roman Antiquities*, and other works. Dr. Adam, in the intervals of his labors as a teacher, was accustomed to spend many hours in the shop of his friend Booge, the famous cutler, sometimes grinding knives and scissors, at other times driving the wheel. One day, two English gentlemen attending the University called upon Booge (for he was an excellent Greek and Latin scholar), in order that he might construe for them some passage in Greek which they could not understand. On looking at it, Booge found that the passage "fickled" him; but, being a wag, he said to the students, "Oh, it's quite simple: my laboring man at the wheel yonder will translate it for you. John!" calling to the old man, "come here a moment, will you?" The apparent laborer came forward, when Booge showed him the passage in Greek which the students wished to have translated. The old man put on his spectacles, examined the passage, and proceeded to give a learned exposition, in the course of which he cited several scholastic authors in support of his views as to its proper translation. Having done so, he returned to the cutler's wheel. Of course the students were amazed at the learning of the laboring man! They said they had heard much of the erudition of the Edinburgh tradesmen, but what they had listened to was beyond anything they could have imagined. Those who have had the good fortune to see the admirable collection of portraits by Raeburn at the Winter Exhibition of the Royal Academy a few years ago, would notice an excellent portrait of Dr. Adam, with the intelligent, kindly, a humorous expression of his venerable

countenance. Dr. Adam died at his post, in his class-room at the High School, in his eightieth year. His dissolution was foreshadowed by an imagined darkness, during which he said to his pupils, "Boys, it's getting quite dark! You had better go home!" He then fell back in his chair, and ceased to breathe. Thus passed away one of the most learned and amiable men of his time.

Natural History has also attracted many students from the specially learned, and even from the laboring class. Who has not read White's *Natural History of Selborne?* The book gains in charm with years. It takes you out of doors, and keeps you there. It is always full of magical interest. "Since I first read him," says James Russell Lowell, "I have walked over some of his favorite haunts, but I still see them through his eyes rather than by any recollection of actual and personal vision. The book has the delightfulness of absolute leisure. Mr. White seems never to have had any harder work to do than to study the habits of his feathered fellow-townsfolk, or to watch the ripening of his peaches on the wall. His volumes are the journal of Adam in Paradise—

> 'Annihilating all that's made
> To a green thought in a green shade.

Observers, students, and inquirers of the humblest ranks have found the serenest pleasure in Natural History. Edward the shoemaker, and Dick the baker, were by no means exceptional men. About Manchester, and London, especially in the East End, are clubs of working men who devote their leisure hours to botany, birds, moths, bees, ants, and various departments of Natural History. In Wales they are great in geology. One of the best of living British botanists was originally an ordinary farm laborer. Southey had a great admiration for the pursuits of Natural History, and regretted that he had not early devoted his attention to

it, instead of to written books. "I know nothing of botany myself," he said, "and every day regret that I do not. It is a settled purpose of my heart, if my children live, to make them good naturalists."

A little attention to the works of nature will fill up the gaps in our time, and supply us with pleasant, and possibly useful information. We never know where the carefully obtained knowledge may find its practical application. Sowerby, the botanist, began life as a miniature and landscape painter. It was in order to be correct in his landscape foregrounds that he devoted himself to the drawing of plants. He made inquiries into their nature, which led him to the study of botany, and he soon became so fascinated that he devoted the rest of his life to the study of the subject. "There is no saying shocks me so much," said Abraham Cowley, "as that which I hear very often, 'that a man does not know how to pass his time.' It would have been but ill spoken by Methuselah in the nine hundred and sixty-ninth year of his life; so far is it from us, who have not time to attain to the utmost perfection of any part of science, to have cause to complain that we are forced to be idle for want of work. The first minister of state has not so much business in public as a wise man has in private; if the one has little leisure to be alone, the other has less leisure to be in company; the one has but part of the affairs of our nation, the other all the works of God and Nature under his consideration."

Dr. Isaac Barrow, one of the most energetic men of his time, as well as one of the most conscientious, preached a sermon upon the Industry of Gentlemen, which has since been published among his collected works. No one could better illustrate the subject from his own personal life and experience. Although he was at first a dull boy,—so dull,

[1] *Prose works*, 1826, p. 132, in "Essay on Solitude."

indeed, that his father is said to have wished that if it pleased God to take any of his children it might be Isaac,—yet, when he had passed through Charterhouse school, which he did fighting his way; and when he went to Petersham, and afterwards to Trinity College, Cambridge, he soon established a character for steadiness and application. Barrow first intended to practice medicine, and accordingly studied anatomy and physiology; but on obtaining a fellowship he began to study theology, as required by the statutes of the College. His desire to investigate ecclesiastical history led him to the study of astronomy, and eventually to the higher branches of mathematics, in which he required distinguished proficiency. He continued the study of the classics so successfully, that the "dull boy," on the resignation of the Greek professor, was recommended for appointment to his chair. But the republicans, under Cromwell, being then in power, and Barrow being a stanch royalist, as well as suspected of "Arminianism," he was not appointed, and resolved to quit College and travel for a time through France and Italy, as far as Constantinople and Smyrna. Holding that courage was a characteristic quality of the gentleman, Barrow bore ample testimony to the excellence of the virtue by his word as well as deed. While on his passage from Leghorn to Constantinople in 1657, the ship in which he sailed was attacked by an Algerine pirate. Barrow would not go below; he counselled resistance, and took a vigorous part in the defense of the ship. He remained upon deck until the pirate sheered off. When asked why he had not gone down into the hold, and left the defense of the vessel to those to whom it belonged, he replied, "It concerned no man more than myself; I would rather have lost my life than have fallen into the hands of those merciless infidels."

The Restoration took place shortly after Barrow's return

to England. He was then appointed Greek professor at Cambridge, and afterwards Gresham professor of Geometry. He resigned the last appointment on accepting the Lucasian professorship; and this too he resigned, after holding the office for six years, in favor of his pupil, the famous Isaac Newton, destined to make one of the greatest advances in astronomical science. Indeed, the history of Isaac Barrow is a history of resignations upon principle. When appointed a prebendary of Salisbury Cathedral, he applied the whole of the revenue to charitable purposes; and when appointed the Master of Trinity College, Cambridge, he resigned the revenues of all the Church preferments which he held. He died too young, at the age of forty-seven. Though his life was comparatively short, the number of his works, especially on Geometry and Mathematics, was very great. His sermons also are storehouses of thought, full of ripe experience and wise observation of practical life. He taught and enforced the wholesome lesson of industry,—besides godliness, prayerfulness, uprightness, and truthfulness.

His own life supplied the best possible example; for he was alike industrious as a Scholar, a Christian, and a Gentleman. He devoted five elaborate expositions to the subject of industry—two upon industry in general, one each upon the industry of Christians, the industry of Scholars, and the industry of Gentlemen. "To achieve knowledge," he said, "and to display the highest virtues of life—hope, temperance, patience, contentedness—require labor and effort. If travelling in a rough way; if climbing up a steep hill; if combating stern foes and fighting sharp battles; if crossing the grain of our natures and desires; if continually holding a strict rein over all our parts and powers, be things of labor and trouble, then greatly such is the practice of virtue. . . . Industry argues a generous and ingenious complexion of soul. It implieth a mind not content with mean and vulgar things, but aspiring to things

of high worth, and pursuing them in a brave way, with adventurous courage, by its own forces, through difficulties and obstacles. It signifieth in a man a heart not enduring to owe the sustenance or convenience of his life to the labor or the liberality of others; to pilfer a livelihood from the world; to reap the benefit of other men's care and toil, without rendering a full compensation, or outdoing his private obligations by considerable service and beneficence to the public. A noble heart will disdain to subsist like a drone upon the honey gathered by others' labor; like a vermin to filch its food out of the public granary; or like a shark to prey on the lesser fry; but will one way or other earn his own subsistence. Indeed, industry sweetens all our enjoyments, and seasons them with a grateful relish; for as no man can well enjoy himself, or find sound content in anything, while business or duty lie unfinished on his hand; so when he hath done his best toward the despatch of his work, he will then comfortably take his ease, and enjoy his pleasure; then his food doth taste savorily, then his divertisements and recreations have a lively gustfulness, then his sleep is very sound and pleasant, according to that of the Preacher, 'The sleep of a laboring man is sweet.'"

One of the negative qualities of industry is, that it keeps one out of mischief. When a man is busy the devil can hardly find an opportunity of tempting him. "A working monk," said Cassian, "is assaulted by one devil, but an idle one is spoiled by numberless bad spirits." Sloth and idleness are among the basest of qualities. The idle man is a cypher in society,—nay worse, he is a wen and a burden; consuming, not producing; a disfigurement, and not an ornament. "The way of a slothful man is a hedge of thorns," said Solomon. "By much slothfulness the building decayeth; and through idleness of the hands the house droppeth through." Industry is indeed the best

fence to innocence and virtue. It is a bar to all kinds of sin and vice, guarding the avenues of the heart, and keeping off the occasions and temptations of vice.

Are we rich? Industry is requisite for managing our wealth wisely, not only for our own and our families good, but for the benefit of others. Have we honor and repute among men? Industry is necessary to maintain and enhance our position, and to enable us to give a still more salutary example to others. The noblest birth, the highest born gentleman, cannot shirk the duty and privilege of industry. If he conceives his privilege to be idleness, then it is his privilege to be most unhappy; for if he be of no worth or use, and perform no service to God and the world, he can have no title to happiness. "He hath," says Dr. Barrow, "all the common duties of piety, of charity, of sobriety, to discharge with fidelity; for being a gentleman doth not exempt him from being a Christian, but rather more strictly doth engage him to be such in a higher degree than others. He is particularly God's steward, entrusted with substance for the sustenance and supply of God's family. He hath more talents committed to him, and consequently more employment required of him; if a rustic laborer, or a mechanic artisan, hath one talent, a gentleman hath ten; he hath innate vigor of spirit, and height of courage fortified by use; he hath accomplishment and refinement of parts by liberal education; he hath the succors of parentage, alliance, and friendship; he hath wealth, he hath honor, he hath power and authority; he hath command of time and leisure; he hath so many precious and useful talents entrusted to him, not to be wrapped up in a napkin or hidden under ground; not to be squandered away in private satisfaction, but for negotiations, to be put out to use, to be improved in the most advantageous way to God's service. . . . In fine, he alone doth appear truly a gentleman, who hath the heart

to undergo hard tasks for public good, and willingly taketh pains to oblige his neighbors and friends. The work, indeed, of gentlemen is not so gross, but it may be as smart and painful as any other. For all hard work is not manual; there are other instruments of action besides the plough, the spade, the hammer, the shuttle; nor doth every work produce sweat, and visible living of body: the head may work hard in contrivance of good designs; the tongue may be very active in dispensing advice, persuasion, comfort and edification in virtue; a man may bestir himself in 'going about to do good'; these are works employing the cleanly industry of a gentleman."

There are, however, various notions about "the true gentleman" amongst the humbler classes. When Sir Walter Scott visited Ireland, and went to see St. Kevin's Bed near Glendalough, Mr. Plunkett, who accompanied him, told the female guide that the visitor was a poet. "Poet?" said she; "the divil a bit of him, but an honorable gentleman; he gave me half-a-crown!" So, when the London cabby receives double his fare, he thinks to himself, "That is quite the gentleman!" Even those of a better class often associate gentlemanliness with money giving; which in many cases is no better than snobbishness. What is it to be a gentleman? Thackeray says: It is to be honest, to be gentle, to be generous, to be brave, to be wise; and possessing all these qualities, to exercise them in the most graceful outward manner. St. Palaye names twelve virtues which are the necessary companions to the true knight: Faith, charity, justice, good sense, prudence, temperance, firmness, truth, liberality, diligence, hope, and valor. To these might be added tolerance and consideration for the feelings and opinions of others.

The true gentleman is of no rank or class. He may be a peasant or a noble. Every man may be gentle, civil, tolerant, and forbearant. You may find politeness in the

tent of the Arab, or in the cottage of the ploughman. Politeness is but natural, genial, and manly deference to others, without sycophancy or hypocrisy. Riches and rank have no necessary connection with gentlemanly qualities. The humblest man may be a gentleman, in word and in spirit. He may be honest, truthful, upright, temperate, courageous, self-respecting, and self-helping. The poor man with a rich spirit is in all way superior to the rich man with a poor spirit. To use St. Paul's words, the former is "as having nothing, yet possessing all things," while the other, though possessing all things, really has nothing. Only the poor in spirit are really poor. For the man who is rich in spirit, the world is, as it were, held in trust, and in freedom from the grosser cares of life, he alone is entitled to be called the true gentleman.

There is a natural nobility and politeness which consists in generosity and excellence of soul; and this may be found in the lowest ranks of life. Witness Chaucer's peasant, who lived in peace and perfect charity, loving God with all his heart, whether prosperous or in calamity, and his neighbor as himself; who would also work

> "For Christes sake, for every poure wight,
> Withouten hire, if it lay in his might."

Politeness of manner is perhaps the last touch in the portrait of a noble character. "A beautiful behavior," says Emerson, "is better than a beautiful form; it gives a higher pleasure than statues and pictures; it is the finest of the high arts. Those who exhibit this feature are the creators and revivifiers of sympathy and Christian socialism." It would scarcely be expected that the gruff Dr. Johnson would insist on the importance of politeness in society. "Depend upon it," he said, "the want of it never fails to produce something disagreeable to one or the other. Though half-blind himself, he willingly offered on

one occasion to assist an alarmed lady across Fleet Street, to keep her clear of the dangers of the traffic. He piqued himself on his politeness to ladies, and always handed them to their carriages from his house in Bolt Court.

Mr. Quincy, President of the United States, was a gentleman in word, manner, and conduct. He appreciated the services of others, and was polite even to the meanest. To his secretary, who was found behindhand with his work, he said, "When you have a number of duties to perform, always do the most disagreeable one first." He was courteous, even to negroes. When riding to Cambridge in a crowded omnibus a colored woman got in, and could nowhere find a seat. The President instantly gave her his own, and stood the rest of the way—a sllent rebuke to the general rudeness. Politeness was in him not only an instinct, but a principle.

A contrast may be given to the politeness of Johnson and Quincy. At the time when beards were commonly worn, Philip I. of Spain sent the young Constable de Castile to Rome to congratulate Sextus the Sixth on his advancement to the Papal chair. But the young Constable's beard had not yet grown. The Pope said to him, "Are there so few men in Spain that your king sends me one without a beard?" "Sire," replied the proud Spaniard, "if his Majesty possessed the least idea that you imagined merit lay in a beard, he would have deputed a goat to wait upon you, not a gentleman!"

Politeness may be considered as a sort of guard which covers the rough edges of our nature, and prevents them from wounding others. He was a gentleman who said, "I would as soon give a man a bad sixpence as a bad word." Ancient and distinguished birth, unless associated with noble characteristics, has no necessary connection with true gentlemanliness. The stamp of birth is not an indelible mark, for it may be associated with meanness, cowardice, and slothfulness. Birth will no doubt have its

influence, in inciting men to deeds of greatness and goodness by recollections of noble ancestry, and by the thought of sustaining and increasing the illustrious honor bequeathed to them. "Remember," said Sir Henry Sidney to his son Philip, "the noble blood you are descended of by your mother's side, and think that only by virtuous life and good action you may be an ornament to that illustrious family; and otherwise, through vice and sloth, you shall be counted *labes generis*, one of the greatest curses that can happen to man."

The noble Sir Philip Sidney did not belie his father's bequest. The gracious manner in which he handed the cup of water to the wounded soldier on the field of Zutphen will never be forgotten. After his death, his friend Fulke Greville spoke of him with dignified regret. "Indeed," he said, "he was a true model of worth; a man fit for conquest, plantation, reformation, or what action soever is the greatest and grandest among men; withal such a lover of mankind and goodness that whatsoever had any real parts found in him comfort, protection, and participation to the utmost of his power. . . Neither was this in him a private but a public affection; his chief aim being not wife, children, and himself, but above all things the honor of his Maker, and the service of his prince and country."

Nobles do not always descend from nobles. Many of the greatest men of antiquity rose from the humblest ranks. Plato was not a noble, though philosophy ennobled him. Cleanthus, the Stoical philosopher, was first a wrestler, and afterwards obtained a subsistence by watering the gardens of the citizens of Athens. Pythagoras was the son of a silversmith, Euripides of a gardener, Demosthenes of a cutler, and Virgil of a potter. The lowest may rank amongst the highest in position, as the highest, for want of honor and conduct, may rank amongst the lowest. The

first raise themselves by emulation and virtue, as the last debase themselves by negligence and vice.

To descend to our own times. Who does not know of the humble origin of Shakespeare, the son of the country wool-stapler? Ben Jonson, bricklayer though he was, remained to the end a "growing gentleman." Does not every reader know of the gentlemen who have sprung from the sphere of labor, from Inigo Jones, the clothworker; Quentyn Matsys, the blacksmith; Josiah Wedgwood the potter; James Watt, the mathematical instrument-maker; John Hunter, the carpenter; Isaac Milner, the hand-loom weaver; Joseph Lancaster, the basketmaker; to Robert Burns, the ploughman; and John Keats, the druggist?

Thomas Carlyle's father was a mason. "A noble craft," said the author of the *French Revolution*, "is that of a mason; a good building will last longer than most books, than one book of a million. . . . Let me learn of *him;* let me write my Books as he built his Houses, and walk as blamelessly through this shadow-world (if God so will) to rejoin him at last. . . . Perhaps he was among Scottish Peasants what Samuel Johnson was among English Authors. I have a sacred pride in my Peasant Father, and would not exchange him for any king known to me. Gold, and the guinea-stamp; the man, and the clothes of the man! Let me thank God for that greatest of blessings, and strive to live worthily of it."

When Hugh Miller, originally a stone-mason, was consulted by Dr. M'Cosh as to accepting the chair of Logic and Metaphysics at Belfast, Miller answered, "If a man has a high heaven-bestowed gift, even if it be that of a mason or mechanic, he should exercise it to the glory of God. You have such a gift; go and use it, and God will open spheres of usefulness to you." After achieving the highest reputation through his lectures and published

works, Dr. M'Cosh was transferred to a higher position by being elected to fill the office of President to Princeton College, United States.

The character of the Christian gentleman cannot be better described than in the words of St. Paul in his Epistle to the Corinthians: "Charity [or Love] suffereth long, and is kind; charity envieth not; charity vaunteth not, is not puffed up; doth not behave itself unseemly, seeketh not her own, is not easily provoked, thinketh no evil; rejoiceth not in iniquity, but rejoiceth in the truth; beareth all things, believeth all things, hopeth all things, endureth all things. Charity never faileth."* The man who acts in the spirit of these words necessarily exhibits the very higeest form of conduct. "The only true refinement—that which goes deep down into the character—comes from Christian charity or love. If such a spirit were universal, a rude clown, or unmannered peasant, or common-minded workman could not be found."†

The third Earl of Balcarres had a peculiar sympathy with St. James, and delighted in his Catholic Epistle, as that emphatically of a gentleman—a term implying, in his acceptance of it, all Christian excellence and perfection. Of the fourth earl, Pitt said most characteristically: "Balcarres was out of humor with us when in prosperity, but staunch when we were in danger—that is the man."

Cardinal Manning, when speaking at Birmingham of possible dangers to England, mentioned the four seas and

* 1 Corinthians xiii. 4–8. A lady of our acquaintance has pointed out to us the Fifteenth Psalm as also descriptive of the true gentleman: "He that walketh uprightly, and worketh righteousness, and speaketh the truth in his heart. He that backbiteth not with his tongue, nor doeth evil to his neighbor, nor taketh up a reproach against his neighbor. In whose eyes a vile person is contemned; but he honoreth them that fear the Lord. He that sweareth to his own hurt, and changeth not."

† The Rev. Frederick Robertson.

the four virtues. He said he did not put his trust in the four seas, he put none in the silvery streak; but he did put his trust in those four great national virtues—of prudence, which made perfect the intellect; of justice, which made the perfect will; of temperance, which taught men to master themselves in the solicitations of pleasure; and of fortitude, which made them strong in suffering and in difficulty.

The truest Christian politeness is cheerfulness. It becomes the old and young, and is always graceful. It is the best of good company, for it adorns its wearer more than rubies and diamonds set in gold. It costs nothing, and yet is invaluable; for it blesses the possessor, and springs up into abundant happiness in the bosom of others. It seeks for the brightest side of human nature. It avoids the ascription of motives, and is forbearant in its judgment of others. In conversation it habitually chooses pleasant topics, instead of faults and shortcomings. It scatters abroad kind words, cherishes kind thoughts, and in all ways sweetens social intercourse. Cheerfulness is the beauty of the mind, and, like personal beauty, it wins almost everything else. Yet it never grows old, for there is nothing more beautiful than cheerfulness in an old face.

"A merry heart," says Solomon, "maketh a cheerful countenance;" and elsewhere, "A merry heart doeth good like a medicine." Cheerfulness is indispensable to manly life; and is in many respects the source of success. The spirit must be kept elastic, in order to scare away fantasies and overcome the difficulties that have to be encountered in great undertakings. In fact, cheerfulness means a contented spirit, a pure heart, and a kind and loving disposition. It means also humility and charity, a generous appreciation of others, and a modest opinion of self. It is not so much by great deeds that good is to be done, as by the little civil courtesies of life, the daily

quiet virtues, the Christian temper and sympathy, and the good qualities of relatives and friends. Little rivulets are of more use than warring cataracts; the former flow on in gentle quiet beauty, the latter carry before them ruin and destruction. It is the same with the acts of our daily lives.

Sympathy is the universal solvent. Nothing is understood without it. One cannot be tolerant of others without the help of sympathy. The inbred capacity of men varies according to their power of sympathy. When it is wanting, efforts made to improve or construct the Christian character almost invariably fail. Numbers of people walk up and down along their own narrow plank of self-enjoyment, pondering over their own merits or demerits, but thinking nothing of those who are entitled to their help. It is the fear of leaving their narrow plank that has chained down many to grovelling mediocrity. Thus we have great bigots and great censors—all arising from the want af sympathy. Yet sympathy is the essence of Christianity. "Love one another" is a simple saying, but it contains a gospel sufficient to renovate the world. The last words which Judge Talfourd uttered from the bench immediately before he died were these, "If I were to be asked what is the great want of English society—to mingle class with class—I would say in one word, the want is the *want of sympathy.*" And with the word Sympathy trembling upon his lips, the spirit of Talfourd passed away.

The character of the gentleman implies a loftiness of conduct, as regards the dictates of morality and the precepts of religion. He will not contract debts which he has not the means of paying. He will scorn to be indebted to others, who are perhaps poorer than himself, for the means of dressing and maintenance. It is only the gent—a caricature of the gentleman—who overdresses himself, and sports ostentatious clothing and false jewellery. The gent