DEMOCRACY OF LEARNING

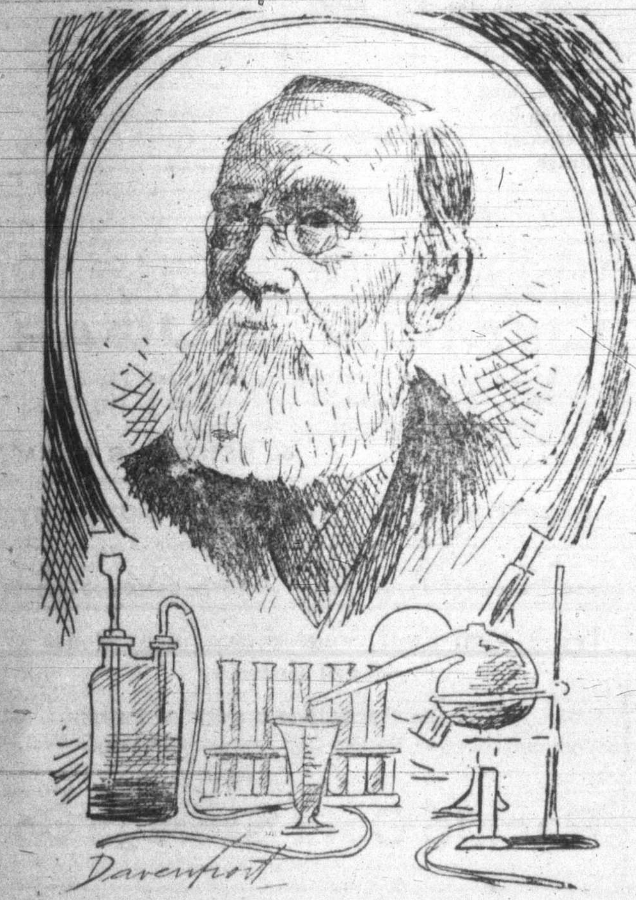
Rudolph Virchow, Germany's Grand Old Man of Science

Oswald Garrison Villard Writes of the Man Who Elevated the Practice of Medicine from a Trade to a Science, Whose Name Will Live as Long at One End of the List as That of Napoleon at the Other—The Apostle of the True Democracy of Scientific Learning.

There died in Berlin, on September 5, one whose claim to immortality rests upon the surest foundation,—upon inestimable services to mankind, through his contributions to the science of healing and to knowledge of the human body. On the names that are bound to live, Napoleon's will always be at one extreme of the list and Rudolf Virchow's at the other. For, above all else, Virchow was a lover of peace, an advocate of disarmament, a believer in the sacredness of human life, an enemy to wars, which he thought the source of most evils of the state, and a man whose whole life was given to increasing the knowledge and skill of physician and surgeon, that the average human existence might be prolonged, and death defeated at bedsides where death had triumphed ever since the memory of man.

Yet, though it must ever be recorded that the practice of medicine owes its elevation from a trade to a science to him more than to all the rest of the medical discoverers of the twentieth century, it would be more accurate to say that he gave one of his lives to the art of healing. Not without reason did the Berlin public declare that when this little scientist died he would be found to be four men, and not one. Many a man has attained an honored place among writers and scientists by contributions no more valuable or extensive than those which came from Virchow's pen about Egyptology and archaeology. Learned men have been honored by universities, the great scientific societies, even by nations, for less useful achievements than Virchow's determination of the measurements for comparative anthropology and his collections of race data which made him at once a pioneer and a leader in ethnology. Almost any ambitious teacher and investigator in any field of science would estimate his activity in terms of greatness could he leave behind him one-third the original contributions to knowledge which bear Virchow's name upon their title pages. But, in addition to all this, it was given to Virchow, throughout his four-score years, to be a great citizen and a great commoner. If he proved, as one medical writer has put it, the blood relationship of medical scientists to investigators in every other field of science, he also made plain beyond dispute, in his own person, the kinship of politics and science, and demonstrated that he who wields the "Pathologist's Sword" can still find time for the duties of a public career as well as those of every-day citizenship.

In the domain of scientific learning is the truest democracy. Citizenship in it is citizenship in a world where there are neither artificial boundaries nor race jealousies. When urged, in the early seventies, to resign from the French scientific societies, Virchow indignantly refused. It was as much of a duty and a pleasure with him to dilate on Russian advances in caring for the public health, or to tell English and Italian scientific men what they owed to their own early investigators, like Glisson and Morgagni, as it was to praise his own countrymen and their achievements. None of the great honors and distinctions showered upon him could ever shake or affect his supreme modesty. This was ever strengthened by his chastening belief that where one's actual achievement falls so far behind one's goal and aims there is no room for pride. A born democrat and a liberal, this belief, as well as his scientific training, made him always one of the people. Indeed, he first attracted public attention and first won the distrust of royalty by his report upon the typhus epidemic of 1848 among the poor weavers in Silesia. Then still a young and unknown physician, his whole soul was stirred by the poverty, the overcrowding, the starvation among those who were not only fellow countrymen, but fellow men and women. He denounced their condition, and the government that was responsible for them, in the strongest terms. From that moment he was a marked man, from that moment dated his enlistment in the cause of humanity.



THE LATE PROF. RUDOLF VIRCHOW.

Born in Schivelbein, near Stettin, in Pomerania, of middle-class parents, his life up to that time had in no way suggested the brilliant and superlative useful career before him. He had left the gymnasium at seventeen, and had gone at one to Berlin to study medicine. On getting his degree as Unterarzt, in 1843, he had been made pro-sector at the Charite hospital, and, in 1847, external lecturer in pathology at the University of Berlin. But the outspokenness of his report on the Silesian weavers, as well as his adherence to the Liberal movement which convulsed Germany in 1848 and 1849, temporarily terminated his career in Berlin, and led to his expulsion from his position. The South German University of Wurzburg was, however, quick to perceive his value, and gave him its chair of pathology, rightly ignoring, if it did not sympathize with, his devotion to the cause of the people.

Here Virchow reconquered his Berlin position, and rose to lasting fame by the publication, in 1856, of his work entitled "Cellular Pathology." Pathology has been defined as "the science of disease, or of life under morbid conditions." Before Virchow devoted his master mind to them little or nothing was known as to the processes which actually constitute disease. Medical men treated their patients, not with any knowledge of the conditions which had led up to illness, but merely tried the effects of drugs upon the symptoms that presented themselves without regard to the causes of which the symptoms were the result. Virchow proved that the cell is the unit of life in the healthy or unhealthy body, and that every cell is the outgrowth of another cell. It was his theory that the most abnormal cellular conditions are the result of injurious agencies at work on normal cells. Other great minds had already progressed considerably in this direction, among them Schwann, Muller, and Paget, but to Virchow must be given the credit for completing the theory and presenting it as a whole, so that it could be grasped by the entire medical world, and became the basis of all medical theory. The study of bacteriology was an immediate consequence, although it seemed at first in conflict with Virchow's theory, and out of bacteriology have grown antiseptic surgery and the other marvelous developments of our modern operative science.

From the time of his resumption of his Berlin chair, Virchow's literary and scientific activity was incessant. Until his final illness he never ceased to work and teach. Continuing the publication of his "Archives of Pathological Anatomy and Physiology and of Clinical Medicine," which he had founded in 1847, and which are now, for the first time, without his supervision, Virchow wrote upon widely ranging topics. Physiology, public and school hygiene, epidemics and endemics, hospitals,—civil and military,—criminal law, military medicine, the cleaning of cities, the reform of medicine—these are some of the general medical heads under which he wrote. Upon the inflammation of blood vessels, the formation of the human skull and the cerebral substances, on swellings, tumors, embolisms, tuberculosis, diphtheria, and many other subjects he used the pen and displayed the knowledge of the specialist. "Goethe as a Naturalist," "Annual Reports of Advances in Medicine Throughout the World," "The Graves of Koban," and many valuable archaeological works might almost be said to have been the pastime and recreations of his intellect, which frequently gave nineteen hours out of the twenty-four to intense mental labor. In the interest of his friend Schliemann, the discoverer of Troy, he found time to travel in Nubia, Egypt, and the Peloponnesus, and no one ever hinted that in these side issues any trace of the amateur was to be found either in his writings or in his historical deductions. If a jack of many trades, he was essentially and absolutely master of them all. And it goes without saying that a mind like this was not contented until it has assimilated one after another of the living languages.

Throughout all this wondrously busy career he was not only the teacher of medical students from all over the world, who gathered in his lecture room to see the extraordinary skill with which he used his knife, but also the instructor of the public at large. For years he taught for the Berling Association of Artisans, in what might now be called a "University Extension" movement, and put all his heart into the work of spreading a knowledge of science among the poor and the great middle classes. He never had a qualm as to the results of imparting education to the masses, nor feared that little knowledge which a catching phrase has made a "dangerous thing." Truth was for him ever the goal to be sought, the god to be worshipped, and there were none to whom he was not willing to carry the facts which science and his own creative ability had brought to light. As if this were not proof enough of his readiness to serve the people, he brought about the construction of one hospital and one museum after another, through his own initiative or the support which his unrivaled prestige enabled him to give to others. Even Berlin's transformation from an exceptionally unhealthy to a notably healthy city is laid at his door.

All this would alone have marked his devotion to the common weal and would have made him as one apart among his brothers in learning, for men like Helmholtz, Darwin, and Pasteur were content with the laboratory and its rewards. Not so Virchow. The highest kind of patriotism, the most conscientious pride in the civic life of which he was a part, impelled him to take office. How he found time to be a conscientious legislator, and even to be a partaker in the social life of the capital, it is impossible to explain. But the fact remains that he was for forty-two years one of Berlin's most faithful city councillors. Moreover, this did not satisfy his desire to serve his state, and in 1862 no fewer than three constituencies elected him to the Prussian chamber, in which he served for sixteen years, and speedily rose to be the leader of the Liberal party by sheer ability and undaunted political courage. After city and state there was still the empire, however, and in the popular governing body, the Reichstag, Virchow served from 1880 to 1893, until turned out by the ungrateful Social Democrats.

It was in the Prussian chamber that he rendered his greatest legislative services. Never an orator, his speeches were clear, forcible, and marked by intense earnestness, and as such they always attracted attention. Bismarck found it necessary to cross swords with him time and again. So natural and so outspoken a radical was naturally a red flag to the wonderful but autocratic chancellor. How could the bureaucracy or aristocracy admire a man who would have his countrymen ground arms whatever the nation's perils? How could they admire one who again and again arraigned the Prussian ministry as he had arraigned it on his return from Silesia? How could the blood-and-iron patriots else than abhor one who, in 1865, defeated the attempt to create a German navy? Or who had, in 1863, forced the chamber to pass a resolution condemning the government? His success in the latter matter so irritated Bismarck as to lead him to challenge the undersized, spectacled professor to a duel, which was fortunately prevented, but the threat of, which did not induce Virchow to soften his language, often described as violent and smacking of the demagogue by those who felt the lash of his tongue. Nor did his being deprive of the rectorate of the University of Berlin, in 1887, for a period of five years, affect his championship of what he considered right. So great a man was above both the rewards and punishments of offended royalty. In the wars of 1866 and of 1870-71 he proved to his political opponents that he possessed the cheaper patriotism by conducting the first ambulance trains into the hostile territories, and devoting to the Red Cross work his extraordinary talent for organization. And all the while, if there was a hospital to be built, a new quarter to be laid out, the police to be reorganized, the drainage to be improved, the water supply to be increased, or the public health to be better safeguarded, it was always to Virchow that the magistrates of Berlin went seeking inspiration and the advice which always determined the action to be taken. Is it any wonder that the city has named its newest hospital after him, or that it buried him at its own expense as its most distinguished citizen?

Wherever placed, with whom he might come in contact, whether delivering the Huxley or Royal Society lectures in England, or showing a couple of Americans through the Berlin Ethnological Museum, or bowing before royalty, this king of science was ever a simple little gray man, "sincere, kindly, unassuming, absorbed in his subject, not in himself, crammed with information, profound and penetrating in thought, plain in utterance, the embodiment of accurate knowledge and sound judgment, the true servant of the truth."

Lord Lister, to whom antisepsis owes so much if not all, speaking as mouthpiece of England's learned societies at Virchow's wonderful eightieth birthday celebration in Berlin, on October 13, 1901 (like his seventieth, an event in the scientific world which drew its devotees from all quarters to the home of the Berlin savant), said: "All these bodies join in the recognition of your gigantic intellectual powers, in gratitude for the great benefits which you have conferred on humanity, and in admiration of your personal character, your absolute uprightness, the courage which has enabled you always to advocate what you believed to be the cause of truth, liberty, and justice, and the genial nature which has won for you the love of all who know you."

Few men have ever lived to have such homage paid and such praise bestowed upon them. None have found the applause of the multitude, the praise of the discerning, or the gifts of kings, of slighter moment, when compared with the satisfaction of high attainment or of ceaseless services on behalf of humankind.

"My wife found a poker chip in my pocket and I told her it was a dyspepsia tablet."

"That was clever."

"Far from it! She swallowed the chip, and the doctor's bills cost me more than the jackpot."—Philadelphia Record.

Stroller's Column.

A paragraph crept into one of the newspapers a day or two ago that Comptroller Lithgow was sick, because he happened to leave his desk a little earlier than usual that afternoon. As a matter of fact the comptroller was in the best of health and was punching the gilt-edged bag at the athletic gymnasium to get into still better form. For Mr. Lithgow is determined to kill something before the winter is over. His sportsman instincts were awakened and highly stimulated by the gorgeous reports recently recounted in his office by Weldy Young and Tom Hinton, of the big killings they had enjoyed in the trackless wilds of the upper Stewart when on their vacation last fall. As he jumps into his tub these cold mornings Mr. Lithgow cheerily chants Kipling's magnificent ode to Nature, "The Red Gods Call Me, I Must Go." And he is determined to go.

Where this mighty Nimrod will go is a state secret, and there is therefore all the more fun in telling it. It is to a solitude whose velvet pile carpetting has never been brushed by the felt-shod feet of the pale face, and when the genial comptroller returns to his desk it will be as a great explorer who has written in a large bold hand the name of LITHGOW upon the maps of this great territory.

And weeks shall linger into months,
And months grow into years,
Ere memories of his glorious deeds
Shall fail to draw our tears.

Yea, years shall climb to centuries,
Centuries ripe and rot,
Before his name and mighty fame
Shall be for aye forgot.

What do you think of that, Dr. Brown, as a specimen of "just-dashed-it-off-in-a-moment" poetry? If Nimrod Lithgow should chance to meet the bohemuth in his native wilds, and stay with him, those lines might look well on a bronze plate in front of the administration building. But let us get to the state secret.

* * *

Mr. Lithgow, in those rare moments when thoughts of his future state blend with the sweet reminiscences of the past, is fond of saying that if he can only hold his job long enough to be entitled to a pension of $600 a year, he will go to Nova Scotia and spend the whole of his declining years fishing. He will live on fish and clams and other brain food, with an occasional apple, and spend his pension on hospitality. This is not the secret but the word fishing snatches the Stroller back to the right track. Fishing and hunting are the comptroller's pride and joy.

Some five hundred miles or more eastward—with a little northing—of the Sifton mountains, there is a broad stream many, many miles in length. Although it empties into the Lewes river some five miles above Little Salmon it has never been explored. It has not even been given a name, no, not even by the Indians. This river abounds in fish of all kinds. In the summer time you can float gently down its broad placid surface in a canoe, and the fish will politely crowd together to give the boat passage way. On the banks the wild animals will be gathered like the native Nova Scotians watching the rare parade of a circus. This is the paradise Mr. Lithgow has chosen and long before the summer comes he will go to take possession of it. When he returns it will be, as before hinted, as a great explorer, and the name of this stream discovered by him will be the Lithgow river. He will go up it from the mouth to the source on snow shoes, meeting many thrilling adventures by the way. Fifty miles up the Lithgow lake is encountered. It is a beautiful lake some eight miles long, narrowing to a canyon through a granite foundation carrying mice in large quantities. As this rock has become decomposed by attrition the sandy floor of the stream is resplendent with fairy gold and this will lead Explorer Lithgow to name it Senkler lake, in honor of the gold commissioner. Some ten miles further on there is another lake pretty but only a little over half the extent of the first one. This the explorer will deem to be sufficiently large to dedicate to the assistant gold commissioner, and it will therefore pass down into history as Gosselin lake.

This is the state secret; not such a very deep one after all. But when the Stroller shall have strolled over the Great Divide, and the thousands of game animals which now throng the banks of this stream shall have given place to pulp mills and shoddy factories, and the roar of machinery and screech of locomotives shall have drowned the music of the water falls and the scream of the eagle—long before this, in fact, people will have forgotten the state secret of the Stroller—that the Explorer took a map of the country in his pocket bearing these self-same names.

* * *

A good deal of enquiry has been made about Dick Grant, and his brother writes from Nova Scotia that he has "valuable" information for him. This valuable information may be to the effect that the old homestead is liable to be sold for taxes unless he sends some of his Klondike gold. If it were otherwise he would be easily found, for Charley Gross, of the N. A. T. & T. Company, told the Stroller last night that Grant left for Juneau last fall and is there yet. As a good many of the boys who once worked on the creeks are now picking rock on Douglas island, and still keep up their subscriptions to the Nugget, Dick must have heard of the enquiry for him before this.

* * *

"Just think of what explorers have accomplished in a few years," said old John Bechtol. "Why, I can remember when Omaha was on the edge of a wilderness extending to the westward which had nothing to recommend it except cacti, rattle snakes and bad Indians — very bad Indians. That was only recently; about '68. California had then a population of probably half a million, and no safe way of getting there except by the isthmus or round the horn. Now look at the millions and millions of people there are in the west."

John is right, and the chances are that Mr. Lithgow, when he does become entitled to that pension, will be many times a millionaire from the ground rents on his townsites where now the sod is untrodden except by the wild game and the lonely hunter. Why, think what a few years ago it is since Slim Jim Wynn, of Juneau, and his partner, found a way over Chilkoot Pass and dug a grub stake out of the Wheaton river which empties into Lake Bennett. Then how they pushed on further to the Stewart river bars; from there to Fortymile, to Circle and to Birch creek. They passed the Klondike, but they came back to it and the city of Dawson, is the result. Now they have pushed still further northward, the intrepid pioneers of the age, and are populating that remote and frigid wilderness. John Bechtol's son has gone over the divide beyond Koyukuk and over the Mackenzie. There will be a townsite boom there next year probably, and the year following the restless prospectors will push on over the snowy wastes until they come across an old post with the name of Methuselah on it, and they will irreverently pull this up to wash out the gravel at its base. That's how the north pole will be discovered, if it ever is.

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The Stroller was pleased that his story of the renowned Paris correspondent of the London Times met with so much favor, and for two reasons. One is to find that reminiscences are not always a bore, and the other because he wishes to say a few words of an old friend, also well known to the reading public, who passed away two or three days ago. Julian Ralph was one of the most lovable of men who ever pushed a pen for a living. He either came from Canada or from the upper part of New York state close to the boundary, and began work as a reporter on the New York Sun about 1880. He was a big man, ungainly, as a young fellow from the country usually is, but of uniform good nature and surpassing modesty. His simple way of telling things he saw, and the absolute photographic truthfulness of these things, struck George William Curtis, the then editor of Harpers. Julian had an easy time after that. In the fall he would take long trips up the Saskatchewan, away up in the wilds of the far northwest, and interest the whole reading world with the unadorned stories of his mild adventures. He afterward joined forces with Remington, the greatest artist who has devoted himself to the life of the trooper and the Indian on the plains. Ralph saw Major Walsh walk unarmed into the camp of Sitting Bull when that redoubtable warrior was caught on Canadian soil and turned over to the United States; he was in the Reil rebellion and all its stirring scenes. Some of these were illustrated by Remington, who was then a staff artist on Harpers.

Late one night, late enough to be called the next day, the Stroller was taking a pot with these two since famous men in the Lotus club, New York. Stories were being swapped as to how each of us had prospered financially. Remington was then illustrating Ralph's writings, and Julian said to him:

"Why don't you write yourself?"

"I write? What nonsense."

"Write the story you have made the drawings for of the Indian massacre at Rosebud agency. No one can tell a story like those who are a part of it."

Two or three Sunday's after that, in Remington's great barn of a studio on Long island, the artist modestly said: "You remember what you said, Julian, about writing a story. Look over that while I hunt up a drink," and he almost blushed as he handed over a few sheets of writing. That was how Remington became the simple and forceful writer he is today. Julian Ralph gave him confidence. He was always helping somebody onward.

* * *

When Hearst started the Journal in New York Julian went on a big salary to London as the correspondent of that paper. That was how he came to go through the Boer war, and with his natural instinct of desiring to see everything which went on he was very often on the firing line and several times got wounded. He had a broken arm which gave him much trouble, together with his other hurts, and while he was kept to his room he wrote his book on the Boer war, in which he tells a good many unpalatable truths of English officers. But he was a favorite for all that, in London as elsewhere. About a month ago he brought out his first novel. Just as the fruits of his esteemed career were coming to him, and in the bloom of his manhood, he died from wounds received in the simple bravery of a correspondent only actuated by the ambition of his life to see and tell what he saw faithfully. The Stroller has no doubt but that on Wednesday last all the leading newspapers of the world paid tribute to Julian's modest character and his great ability as a truth-teller and word painter.

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