Medical School Reformer

▪ A quirk in medical history is that the man who did most to lay the sound foundations of American medicine had neither medical training nor background.

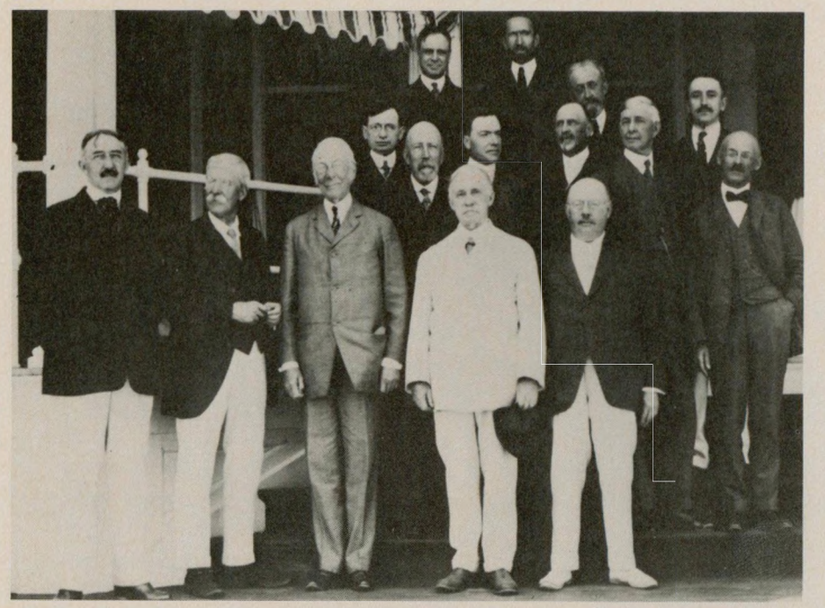
He was Abraham Flexner, an educator, whose explosive 1910 report on the lamentable state of medical education in the United States and Canada led to revolutionary reforms that eventually helped both countries to wrest leadership in medicine from European schools. The same man also relentlessly hounded rich men into donating millions for reputable medical schools.

BEGINNINGS. Flexner's parents were Jewish immigrants, the father from Bohemia (now Czechoslovakia), and the mother from Alsace. His father, Moritz, was a former schoolteacher, and there was a tradition of learning on both sides of the family, but in the United States the Flexners had to forge a new start from humble beginnings.

They settled in Kentucky where Moritz became a peddler, tramping the dusty roads with a small stock of wares packed on his back. He prospered sufficiently to buy a horse and wagon, obtaining a stiff-legged horse for the bargain price of $4, and went on to establish a firm that dealt in hats.

Abraham was born on November 13, 1866, in Louisville, the sixth of nine children. These included an older brother Simon who was also destined for a brilliant career: he gained fame as a pathologist and bacteriologist and became director of the Rockefeller Institute for Medical Research.

The home atmosphere encouraged a love of literature and knowledge. The parents acquired a complete set of Dickens, buying it on the installment plan, and passages were read aloud at family sessions every evening. They also owned a set of Shake-



Flexner, previous page, is on shipboard on his return from England where in 1928 he delivered a series of lectures at Oxford. At the Hotel Samoset in Rockland, Maine, in 1915, left, he poses with the directors of the General Education Board, of which he was secretary, including Frederick Gates, second from left bottom row, Harvard president Charles Eliot at his left, John D. Rockefeller, Jr., third from left in the second row.

speare, and at the city library young Flexner absorbed with equal enthusiasm such varied fare as Keats, Carlyle, Cervantes, Izaak Walton, Hawthorne, Thoreau, and Poe. On his 13th birthday, his parents gave him a volume of Plutarch's work that he kept as a prized possession all his life.

His first formal education was meager, and he afterward labeled the Louisville public schools of his time as "deplorably backward." While in high school he became an assistant at the city library, hurrying there after classes to put in a daily 9.5-hour stint. Family finances made the job necessary, but Flexner saw it also as a splendid opportunity to meet educated adults. He was soon admitted to an informal club that met regularly to debate political questions, and before long he began to write letters on Southern politics that were published in the prestigious *Nation*.

After graduation from high school at 17, he enrolled in Johns Hopkins University in Baltimore; the venture was financed by his brother Jacob who was then a pharmacist and later became a physician. At Johns Hopkins Flexner learned that his haphazard self-instruction had left him brilliantly prepared in some areas, ignorant in others.

He was excused from writing themes because his *Nation* letters amply fulfilled that requirement, but he was also denied admission to a Greek class because he was inadequate in the subject. A professor offered to instruct him for exactly five minutes a day and Flexner made up the rest of the deficiency with his own study routine. He wrote declensions of Greek verbs on small slips of paper, stuffed them in his hat, and pulled them out at random as he went about his other tasks. If he could recall a verb form correctly, he threw the slip away, but otherwise it went back in the hat; in six weeks he was admitted to the Greek class. Meanwhile he doubled up on other courses and obtained a bachelor's degree in two years.

EDUCATOR. Flexner returned to Louisville at 19, taught high school for four years, then opened a private school. Almost immediately he gained recognition as a brilliant though unorthodox teacher, capable of inspiring students who had failed under less interesting pedants.

Flexner said of his methods: "The school was operated without rules, without examinations, without records, and without reports. I relied upon other things: first, enthusiasm; second, cleverness in outwitting students who tried to dodge their responsibilities; third, good humor; and finally, emulation and competition." He added: "I really cared about excellence. I tried hard to do what I could for the average, sometimes with results that were surprisingly good."

Flexner taught only boys at first, then was urged by a prominent family to accept a girl. He agreed reluctantly, with the remark that "it might be more fun teaching a clever girl than a dull boy." The student was Anne Crawford, who became a successful playwright and his wife. They were married in 1898, and their honeymoon was a literary pilgrimage to England and Scotland. The union produced two daughters, Eleanor and Jean.

Anne stimulated and encouraged Flexner, served sometimes as a goad. At her urging in 1905 he gave up his school to pursue a long-cherished dream of graduate study. During 1905 and 1906 he obtained a master's degree from Harvard, studying psychology, philosophy, and science; he also studied brain anatomy under the guidance of his brother Simon at the Rockefeller Institute for Medical Research. He went to Europe and studied psychology and education under distinguished professors at Berlin and Heidelberg. He found the German educational system vastly superior to the American, and in 1908 he published that conclusion in his critical first book, *The American College*.

REFORMER. American medical education in the early 1900s was in a deplorable state and a spirit of reform was in the air. Flexner's general criticism of college deficiencies gained attention, and the Carnegie Foundation for the Advancement of Teaching asked him to survey the competence of medical schools.

This Herculean assignment required an assessment of 148 medical schools in the United States, plus seven in Canada, at a time when regulations and uniform standards were nonexistent. Flexner undertook the task without a staff, refused the encumbrance of an advisory committee, and devised at the outset an investigative approach that he said "struck from the shoulder."

He consulted with Simon, talked to medical professors at Johns Hopkins, then drew up a list of basic standards. He evolved five key questions: the entrance requirements for students, the size and training of the faculty, the financial resources of the school, the quality of the laboratories, and the extent of practical training in hospitals.

Flexner visited each of the schools to conduct a brisk but thorough personal investigation. Typically, he began by consulting the college catalogue for entrance requirements, then checked random samples of student cards to learn whether the standards were actually enforced. Often he could detect a diploma mill from a half hour's reading of the card file alone.

Of other investigative procedures he said: "A stroll through the laboratories disclosed the presence or absence of apparatus, museum specimens, library and students. . . . In the course of a few hours a reliable estimate could be made respecting the possibilities of teaching modern medicine in almost any of the 155 schools I visited."

At a school in Salem, Washington, Flexner asked the dean if the facilities included a physiological laboratory. The dean replied: "Surely. I have it upstairs, I will bring it to you." A few minutes later the dean handed him the laboratory equipment, a small sphygmograph. In a Des Moines, Iowa, school

On vacation in 1916, he poses with his daughters Jean and Eleanor and his wife Anne. The outstanding Institute for Advanced Study at Princeton, with its imposing neo-Georgian Fuld Hall, below, was founded by Flexner in 1930. Among the first professors recruited to the Institute was Albert Einstein.

In his mid-80s, Flexner enrolled at Columbia University for a series of courses in fine arts, classics, politics, Russian and American history. Earlier, below, he spoke on the radio during an intermission of the famed Metropolitan Opera broadcasts and urged Americans to enjoy an active and militant freedom.

he encountered locked doors marked with such labels as Anatomy, Physiology, and Pathology. He was told that the janitor possessed the only keys and was unfortunately absent. Flexner pretended to accept the excuse but later returned quietly, found the janitor, and bribed him to open the doors; in each of the rooms the entire equipment consisted of a desk, a small blackboard, and chairs.

Flexner began his field investigations in January, 1909, and devoted more than a year to an arduous tour. In one 16-day period his inspection rounds extended to 13 cities scattered through Iowa, Nebraska, Missouri, Oklahoma, Texas, Arkansas, Tennessee, and Mississippi. His practice was to visit all schools in a given area, then return to New York and write an individual assessment of each facility while his notes and recollections were still fresh.

Each school received a copy of his report and bitter protests followed closely behind. Complaints from shabby proprietary schools were easily dismissed, but Flexner was equally ruthless in dissecting the flaws of supposedly prestigious institutions. Powerful politicians and business forces brought pressure to bear when their pet projects were castigated, but the Carnegie officials stood firm against all attacks, even when one howl of outrage came from a foundation trustee.

In one instance the St. Louis merchant-philanthropist Robert Brookings appeared in New York to protest personally about the criticism of a medical school he had helped to endow. Flexner offered to repeat the inspection with Brookings at his side, and after a two-hour tour Brookings was appalled and convinced. He asked: "What shall we do?" Flexner replied: "Abolish the school," then offered concise suggestions on how to create a first-rate new facility.

Flexner's report, entitled *Medical Education in the United States and Canada*, was published as the Carnegie Foundation's now famous Bulletin No. 4 in 1910. In a sweeping indictment it stated that only a handful of the 155 medical schools met adequate standards and only one, Johns Hopkins, was rated excellent.

In 139 schools the libraries and laboratories were found to be either grossly inadequate or nonexistent. More than half the schools had entrance requirements described as "the rudiments or the recollection of a common school education" and only Johns Hopkins and Harvard enforced entrance standards of a college degree.

Each of the individual schools was described in brief but telling fashion and the judgments rendered were made all the more vivid by the bulletin's fact-studded style. California Medical College was labeled "a disgrace to the state," that of the University of Buffalo was dismissed as "a fiction," and Chicago was called "the plague spot of the country in respect to medical education."

The report caused a general uproar that extended far beyond the academic community. The medical profession's reactions were mixed but Flexner observed wryly: "No doctor would speak to me for some time, including my own." The profession nonetheless took heed and reforms followed quickly. About half of the condemned schools soon closed and stringent reorganization resulted in marked improvement in many others.

The bulletin suggested an ideal scheme of consolidation, showing how the hodgepodge facilities could be reduced to some 30 schools strategically located to serve the entire country. Flexner also proposed such practical reforms as the establishment of well endowed teaching chairs and the use of medical schools as research centers.

INNOVATOR. Having gained fame as a critic, Flexner became a creator, helping to rebuild medical education along the grand lines that his bulletin proposed. The first opportunity came when he was approached by Frederick Gates, philanthropic aide to John D. Rockefeller, who asked advice on the best application for a medical grant of $1 million. Flexner suggested that it be used to finance full-time teaching posts at Johns Hopkins, freeing professors from the necessity of supplementing their meager salaries with private practice. The idea was adopted and became a model for other schools.

In 1913 Flexner joined the General Education Board, a foundation financed by Rockefeller. During the next 16 years, he used his position as secretary to raise more than $100 million for medical education, and the impact was multiplied several times by a board policy of granting all endowments in the form of matching funds.

Flexner's fund-raising technique combined audacious requests and shrewd tactics in dealing with prospective donors. When he decided to ask Rockefeller for $50 million, then an unprecedented sum, he asked Gates how the matter should be presented. Gates suggested a memorandum and Flexner asked: "How much will he read?" Gates said, "Oh, five pages," to which Flexner replied: "I shall try to get it into four." Rockefeller provided only $20 million, and Flexner boldly announced that he planned to wait for the rest because he did not want the Rockefeller name associated with any small and disappointing project. Rockefeller took the hint.

On another occasion he asked the Kodak company magnate George Eastman to sponsor a medical school in his home city of Rochester, New York. Eastman offered $2.5 million and Flexner waved it aside, saying nothing worthwhile could be accomplished on that scale. Eastman protested that he was not in a position to give more and Flexner said blandly: "There is no hurry. Wait till you sell more Kodaks." Eastman finally settled for $5 million matched by the General Education Board, to launch the University of Rochester Medical School.

John Pierpont Morgan yielded to similar persuasions and raised an initial $2 million offer to $5 million. Later Flexner told Morgan that he had fretted over the transaction, wondering if he should not have held out for more. Morgan chuckled: "No sir. You got the last possible dollar."

The University of Iowa Medical School asked Flexner's help in outfitting a pathological laboratory and he rejected the request as too modest, suggesting instead a sweeping reorganization and modernization of the entire school. He offered a board grant of $2.5 million if the state invested an equal amount, but he was told that Iowa farmers were not

At 89 in 1956 he received at a dinner in his honor the Frank Lahey Memorial Award from S. Sloan Colt, president of the National Fund for Medical Education.

accustomed to thinking in such staggering sums. Flexner replied: "The farmers of Iowa are shrewd businessmen. They might be tempted by the possibility of buying a dollar for 50 cents." The subsequent Iowa grant stimulated a lively competition to improve other Midwestern medical schools and marked the first time that Rockefeller funds were donated to a government agency.

The reform of medical education absorbed most of his energies for two decades, but he remained an incurable scholar with wide-ranging interests. In those busy years he also wrote a sociological study on *Prostitution in Europe*, persuaded John D. Rockefeller, Jr., to finance excavation of the Agora in Athens, and was instrumental in founding Baltimore's Institute of the History of Medicine.

In 1928, at 62, he retired from the general board,

toured Europe, and delivered a guest lecture at Oxford. During the next two years he expanded the lecture into a major study entitled *Universities: American, English, and German.* The work marked a return to his old function of public scold; he denounced the "shameless humbuggery" of American teachers colleges and heaped ridicule on the "absurd topics" explored for Ph.D. degrees.

FOUNDER. In 1930 the department store magnate Louis Bamberger and his sister, Mrs. Felix Fuld, asked Flexner to suggest a worthwhile use for a large endowment. Flexner had a proposal ready, pulled out a copy of an old memo he had written on "The Usefulness of Useless Knowledge." He urged the creation of a center where great intellects could be brought together with the leisure to think and the freedom to follow any course that their inquiries required. The result was the Institute for Advanced Study, chartered in 1930 and officially opened at Princeton, New Jersey, in 1933.

The donors asked Flexner to head the Institute but he at first demurred, saying that the assignment should go to a younger man. His hesitation was dissolved when his wife challenged him: "You will have to do it. You have spent your life criticizing other people. You can't refuse to give them a chance to criticize you."

The Institute was planned from the start as an educational center that would have no curriculum, require no examinations or reports, and confer no degrees. Its only aims were to provide "the tranquility and the time requisite to fundamental inquiry into the unknown" and to "furnish conditions favorable to the restless prowling of an enlightened mind and informed human spirit."

The first of several Institute schools was established in mathematics and was launched with a master stroke by recruiting Albert Einstein, then director of theoretical physics at the Kaiser Wilhelm Institute in Berlin. Flexner at first feared that it would be presumptuous to solicit the renowned physicist but when he made the proposal Einstein said simply: "I am flame and fire for it."

Formed soon afterward was a school of economics and politics and a school of humanistic studies. In each the staff consisted of a small corps of distinguished professors, a few research assistants, and transient scholars who passed through both to infuse new ideas and refresh their own.

In nine years as the Institute's director Flexner called one faculty meeting, found that nothing came of it, and never called another. Thereafter he administered the Institute's managerial affairs in a frankly autocratic fashion, while leaving his prized scholars wholly free to pursue their thinking. The spirit of the Institute was capsuled by one incident in which a newly arrived professor inquired: "What are my duties?" He was informed: "You have no duties. Only opportunities."

LAST YEARS. In 1939, at 73, Flexner announced his "final retirement." During the next seven years he wrote four books, beginning with a frank and lively autobiography called *I Remember.*

There followed biographies that were loving tributes to Henry S. Pritchett and Daniel Coit Gilman; Pritchett had been president of the Carnegie Foundation and Flexner's staunch ally in the crusade for medical college reform, and Gilman had presided as Johns Hopkins president when Flexner came there as an eager young student. At 85 Flexner published *Funds and Foundations*, his last major work of social criticism. He defended foundations against the then current charges that they fostered radicalism, but rebuked them on opposite grounds for having grown too cautious and bureaucratic.

For relaxation Flexner went almost every year to a summer home he maintained on Lake Ahmic in a forest region of Ontario. There he swam, fished, boated, walked in the woods, enjoyed the company of old friends. In the evenings they would read aloud to one another gathered before a crackling log fire.

Flexner's wife died in 1955 and he confronted the loss by resolving that he would "enlarge the sphere of my activities rather than let it contract." He maintained an office in New York City and went there daily to keep up an active correspondence. He still served as unofficial adviser to numerous organizations and was always alert to the possibility of helping a deserving scholar to obtain a grant or find the right post.

At 90 he made his last trip to his beloved Canadian retreat, then resettled in suburban Falls Church, Virginia, in order to be near his daughter Jean. He lived there serenely, working on an updated version of his autobiography while finding life a "daily joy." He wrote: "I still enjoy the leisure for reading and rereading. Beethoven, Mozart and other favorite composers provide evenings of beautiful music. Above all, I have welcomed the time given me for meditation and for retrospection upon my long and full life."

On September 21, 1959, at the age of 92, he died. Among numerous tributes was a newspaper editorial that described him simply as one of the "great movers and shakers" of his era.

SUMMING UP. Flexner once described his life in terms of Thomas Carlyle's bookplate, which displayed a lighted candle with the words, "I burn that I may be of use."