IN 1859 California had been a state for less than 10 years; Walter Reed was only eight years old; and Washington, D.C., was seeing the end of an era, of a sort, as it housed the last White House resident to wear the old-fashioned stock as a neck­piece. Yet in the next 40 years all three of these were to have occasion to know well and to remember a man who was born that year in a little town named Milledgeville, in Georgia—Joseph Hill White, physician, sanitarian, and pioneer in what has been called "medicine's greatest detective story"—the pursuit and capture of yellow fever.

California was to know Doctor Joseph Hill White as the man in charge of ridding San Francisco of bubonic plague; Washington as friend and colleague of President Theodore Roosevelt and Carter Glass, and also as chief general inspector of the United States Public Health Service. And Walter Reed was to know him as the man responsible for wiping out an epidemic of yellow fever by mosquito control in 1899, preceding the final report of the Reed Board in Cuba by almost two years.

Sixty-eight years have passed since young Joseph White was graduated from the University of Maryland in 1883 . . . "near the top of my class," he says now, but if pressed for further details he will add that it was the first and last time he ever placed less than first in any examination. This incidental intelligence is consistent with the distinguished achievements of his forebears: both he and the girl who later became his wife could trace their families to an astonishing number of famous people, among them the Emersons, Lowells, Searses, Gardiners and Dr. Henry A. Christian of Boston; the Christians and Carter Glass of Virginia; and to five Presidents of the United States—the two Adams', both Roosevelts, and Andrew Jackson. It is a truism that resourcefulness and enterprise are the marks of the true pioneer, and even as it was to be demonstrated in the career of Doctor White, so also was it evident in that of his family who, in the person of a young Irish baronet, played a major part in the establishment in 1636 of Newton School, now Harvard University.

For the first five years of his life young Joseph lived the normal life of any child of that day who had been born into a home of means, but Milledgeville was directly in the path of Sherman's march to the sea, and 1865 found the family's material wealth either plundered or destroyed. As he says now, even his relative, Lieutenant-General Hill of the Confederate Army, couldn't save them. Along with thousands of southern families, the Whites were reduced to starkest poverty; Joseph's early education was the improvised product of determination, character and courage in the first decade that followed the end of the war.

He was 14 when the decimated state of the family resources decreed that he quit school and help to earn his living; he became a telegraph messenger, and his promotion to operator followed a year later. But this was not enough to satisfy the descendant of that certain early settler of the Massachusetts Bay Colony, who also had had to rebuild a damaged fortune. Young Joseph's uncle, Samuel G. White, was a physician in Maryland; plainly there was more challenging work to be done. But education cost money—then as now—and Joseph resigned his position as senior telegraph operator (he was still in his teens) and became a bookkeeper. He averaged at least 16 hours a day, becoming an expert accountant—and by the time he left for Baltimore's College of Physicians and Surgeons he had earned $500 to finance him through school. He had already been virtually self-supporting for six years, had mastered two different jobs, and—most important—had determined to join his uncle in the practice of medicine.

Dr. Samuel G. White of Baltimore was an excellent man to emulate. Dr. L. McLane Tiffany, Dean of the School of Medicine of the University
of Maryland, had called him "the most learned physician and courtly gentleman" that he had ever known. Dr. Samuel White proceeded to teach his young nephew as well that the latter was able to piece out his meager earnings by tutoring students—many of them older than he—who had fallen behind in their work, and managed at the same time to maintain his own high scholastic average until his graduation in 1883.

With his subsequent admission (by examination) to the United States Marine Hospital Service, fore-runner of the United States Public Health Service, Dr. White began a career in public health administration which was to last more than 30 years. It took an assignment to New Orleans, in 1884, to crystallize his interest in the etiology of yellow fever—first, because that city was literally a swamp-bed of infection, and second, because he himself came down with it, "and then and there declared war on that disease." It was to be 20 years until the New Orleans brand of yellow fever would again see Joseph Hill White, and then under memorable circumstances. Meanwhile there was time for him to marry Miss Emily Humber in 1885, and to begin raising a family of three daughters and one son with the wife whom he still regards as "the most perfect woman I have ever known."

Transferred from New Orleans to Savannah, Dr. White commanded the South Atlantic Quarantine at Blackbeard Island. Realizing that this was a serious potential point of entrance of yellow fever to the United States, he got the station raised to first-class rank, meantime discharging his regular duties in charge of a smallpox epidemic in southern Georgia. But Hamburg, Germany, was suffering from an outbreak of Asiatic cholera, and in 1895, after a brief tour of duty in New York for the study of immigration problems, he was sent to Hamburg as U. S. Sanitary Representative, charged with preventing the spread of cholera from there to the United States.

Here he worked with the famous Dr. William Phillips Dunbar, for whose studies in bacteriology he had great respect. Together they devised tests for carriers and for suspected material that enabled them to release many emigrants and millions of dollars worth of goods for transportation to this country. It was while engaged in this work that Dr. White contrasted the second of the three great scourges with which he was to deal during his career; he learned about cholera not only as doctor and patient. He was indeed well qualified to serve as Professor of Hygiene and Sanitary Science when sent to the University of Alabama three years later!

Shortly after his success at Hampton, Dr. White discovered that apparently the yellow fever of New Orleans and the cholera of Hamburg had set an unpleasant precedent: in 1900, while riding San Francisco of bubonic plague, he also learned about that disease as both doctor and patient. He was still more in charge of epidemics of smallpox and yellow fever in Florida, Louisiana and Mississippi. It was not long before he was ordered to the Marine Hospital on Staten Island, largest hospital in the Service. During this time, and the time which followed in head of the Medical Staff on Ellis Island, he worked with the Police Commissioner of New York City, and incidentally a relative of his—Theodore Roosevelt. They were to meet again in Washington during TR's administration as President. Dr. White got there first, when, in 1899, he was made Assistant Surgeon-General in charge of the Marine Hospital Service Quarantine Division, with headquarters in the capital city.

Hardly had the Whites begun to get established in Washington when the nation was startled by an outbreak of yellow fever in the Old Soldiers' Home at Hampton, Virginia. And it was at this point that the true genius of Joseph Hill White began to shine.

For years he had been an intensive student of yellow fever. He had made himself thoroughly familiar with the "mosquito-borne" theory of Dr. Carlos Finlay of Havana, and with the "insect-borne" theory of Dr. Henry R. Carter. Over the years as public health administrator he had himself observed an incidence and distribution of the disease that best fitted the mosquito-borne theory, and he had not forgotten his personal experience in New Orleans 16 years before. Thus it was the night before leaving for Hampton to deal with the epidemic on its own grounds, when he was visited by an old colleague and friend who also was deeply concerned with the problem of yellow fever. Dr. White told his fellow doctor that he intended to try to wipe out the Hampton epidemic by mosquito control. He did try, and he succeeded; his visitor, the night before Dr. White had left on that mission, had been Dr. Walter Reed.

Today he still carries the gold watch whose inscription is a testimonial to this earliest triumph over yellow fever. Had Dr. Reed lived to present his own final report of the epoch-making work of his Yellow Fever Board, he had planned to credit Dr. Joseph Hill White with his truly pioneer work at Hampton, which preceded the final report of the Reed Board in Cuba by almost two years.

Just six years to the day from its appearance at Hampton, yellow fever once more broke out in the
the admittance of precautions from yellow fever-ridden countries to the United States. Within about nine years epidemic of yellow fever in the United States. The place, New Orleans; the year, 1905; the doctor in charge, by order of President Theodore Roosevelt, Joseph Hill White. By this time, of course, the Reed Board had proved beyond any doubt that yellow fever was carried by the mosquito as well as by the body. The epidemic which succeeded in spreading the city of yellow fever by mosquito control alone (for the first time) during the last epidemic of the disease in the United States.

Dr. White’s administrative skill, backed by the courage and tact, overcame all antagonism, and by the methods he employed, he merely required that such persons give their word of honor to report daily for seven days for inspection. Only two persons violated that pledge, and these were promptly fired by their employers. Dr. White’s comment was, “God send us more such employers!” When not engaged directly with administrative duties he taught physiology at Newcomb, the Women’s College of Tulane University.

In 1917, after a tour of duty in Memphis where he was also a member of the summer faculties at Peabody Institute and the University of Tennessee, he was commissioned General Inspector of Anti-Malarial Work in the Army of the United States. He was offered a major-generalship, but this would have required his resignation from Public Health Service, and he preferred to serve as a Colonel instead. After World War I he was made General Inspector of the U.S.P.H.S., which had assumed responsibility for hospitalization of the returning army. Secretary of the Treasury Carter Glass valued

Dr. White’s army work so highly that President Wilson commissioned him Assistant Surgeon General of the U.S.P.H.S.

In 1912, Dr. W. B. Rose, head of the Rockefeller International Health Board, appointed Dr. White Director of the World-wide Campaign Against Yellow Fever. He worked in Central America, Colombia and Brazil, and satisfied himself that Hansen in Peru and Pardo in Ecuador were adequately eliminating the disease in those countries. It was during this time that Hideyo Noguchi worked with Dr. White in the yellow-fever campaign, and at that time put forth his unfortunate belief in the so-called Leptospirosis intermedia as the cause. Noguchi was so insistent that he be sent to Africa to prove his point that Dr. White was forced to let him go—to his martyrdom, as it proved.

Having eradicated yellow fever from all of Central America and almost completed his work in Brazil, he suffered serious hemorrhages from peptic ulcers which had developed during World War I, and had to come home while others completed what he had begun. It is highly significant that all of the countries which he cleared of yellow fever, from 1905 when stationed in New Orleans, until 1925 when he was with the International Health Board, have remained clear of the disease. Truly his career has come a long and honorable way from the day in 1905 when he spoke before the American Medical Association in St. Louis, urging a world-wide campaign for the eradication of yellow fever; and from the day when he had first announced that the carriers must include a jungle mosquito as well as Aedes aegypti, a house mosquito—which he had deduced from reports of natives from the Amazon jungles and which since has been proved beyond any doubt.

A career is remarkable enough in itself, but it is beside Dr. White? Only one who has known him can really appreciate him. Though now nearly 92 years old, he remains a most vigorous and forceful man whose alertness of mind is amazing, and only with the failure of his sight in recent years has he been forced to give up his lifelong and discriminating interest in books. Dr. White and two other high officers decided the violation was a matter for the President’s personal attention. It was at that point the President read the high regard of Joseph Hill White who, after all, had been reared in the Southern Democratic tradition. The President read the offending telegram, frowned, was silent a moment, and then issued an order to the following effect: “Tell Major-General to put his division back aboard ship, return to quarantine, and stay there till they are all inspected—and tell him, too, that that 800 word telegram is to be paid for by him personally, for it is not in line of duty and he has violated the laws of the United States. The matter of disciplining him will be taken up later.”

And he recalls how it was a trick of circumstance and the failure of the Wall Moos party that prevented his appointment as Surgeon-General of the United States Public Health Service, for Theodore Roosevelt had already indicated his intention of recommending him for that position.

But many things and people and places crowd his memory and it has been an extraordinary privilege to sit at his feet in spare hours and listen to his reminiscences of more than 90 years. Honoreously now he will tell you that he is probably one of the few victims of malaria to have been literally cured by a bolt of lightning and still live to tell the tale, though it is not a treatment which he recommends. Standing in his room during a violent thunderstorm, he was struck near the waist by a lighting bolt which burned a spiral path down one leg and through his foot. He bared the head of the bolt threw him across the room with such force that his skull was fractured. His doctor told him the prognosis was grave; very probably, he said, young Joseph could not live. "Noneone," said Joseph White, who was to live to save millions of others over the years—and recovered completely.

Inevitably, with such a career, the recollections include many impressions of other famous men: Reed and Gorgas, who were his close friends until they died; Chagas (of Chagas’ disease), whose ability Dr. White considered even greater than that of the famous Oswaldo Cruz for whom the Trypanosoma cruzi was named; Kitasato, whom he knew personally and regards as the supreme Japanese scientist; President McKinley, who earned Dr. White’s highest respect through his handling of a particular crisis during the emergency of the return of troops from Cuba in 1899. That was the year in which a certain major-general disregarded orders to stay in quarantine overnight so that Dr. White and his staff might inspect the men for jaundice by daylight, in order that such visible symptoms of yellow fever might be detected and further examined. Not only did the officer violate the quarantine laws, he also sent Dr. White an 800 word telegram, signed “Chairman of the Republican National Committee.”

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differences between Roosevelt and Taft were too sharp, and Taft could not see his way clear to
appoint Roosevelt's man.

Central America has many memories for the
man who was responsible for clearing it of yellow
fever, and one of the pleasantest was his trip to
Guatemala City, a few years ago, when with two
of his daughters he decided to spend the winter
there. Arriving in the Republic, they found the
private railroad car of the President awaiting their
convenience. When they made a courtesy call to
the Executive Mansion they discovered their host
to be the same man who, many years before, had
worked under Dr. White's direction in helping to
rid his country of yellow fever. Before the visit was
over he personally conferred upon Dr. White the
Order of the Quetzal, the first time that a foreigner
had been so honored by the highest decoration
given by the Guatemalan government.

Ninety years and a distinguished career have
brought him many offices and honors: Chairman of
the Section on Hygiene and Sanitary Science of the
American Medical Association; President of the
American Society of Tropical Medicine; U.S. dele­
gate to the International Sanitary Conference in
Montevideo in 1920; first President of the Ameri­
can Leprosy Commission. . . the list is long and
impressive, and the man who has made the achieve­
ments today makes one think of three other famous
old men with alert minds at a great age—Doctors
Silas Weir Mitchell and William Williams Keen of
Philadelphia, and Mr. Justice Oliver Wendell
Holmes of the United States Supreme Court. Like
them, Joseph Hill White is a talent man, work­
ing in season and out for the good of his fellow
man. Today he is a distinguished, gallant gentle­
man, a wonderful old man with what the late Dr.
I. Chalmers daCosta would call "a redoubtable
personality," and withal a most lovable character to
know.

Today in the Church of the Pilgrims (Southern
Presbyterian) in Washington, there is a memorial
window to the memory of the late Emily Hummer
White and to Dr. White while he yet lives. At the
dedication of the White Memorial window Dr.
Andrew Reed Bird, as minister, paid high tribute
to Mrs. White, and said, of her husband, "Dr.
White has lived a life of extraordinary usefulness.
A volume would be required to recount the vital
service which God has rendered through him to
individuals and to great masses of the population
of North and South America. It would be fascinat­
ing reading to scan the history of individuals, both
white and black, whom he has rescued from dis­
tress and enabled to become, in their turn, con­
structive citizens on several continents. His work in
fighting the ravages of yellow fever in association
with Walter Reed and other scientists has saved the
lives of literally innumerable families throughout
the years, and will do the same for generations yet
unborn."

FREDERICK R. TAYLOR, M.D.