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I'm mighty proud of the Kirby, not because it is named for me so much as for the fact that it does revolutionize home cleaning methods, doing it more thoroughly, completely and easily than has been possible in the past.

Jim Kirby

THE MAN WHO REVOLUTIONIZED THE AMERICAN HOME

by Lowell Thomas

James B. Kirby at his drafting board in the old Mill House workshop on the Kirby farm.

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ON a steaming Saturday morning in a mid-Western home a young lad was fixing a new light over the kitchen sink. In spite of his youth it was child's play for him. Whenever any such thing had to be done, not only in his own home but around the neighborhood, whenever any mechanical gadget went wrong, people would say: "Ask Jim to fix it."

Through the kitchen door he could see his mother sweeping out the dining room. Down her face the perspiration was streaming, around her were clouds of dust. Throwing down his screwdriver and pliers the lad exclaimed: "Here, Mom, for Heaven's sakes give me that broom."

As he swept and sweated he had opportunity to think. Certain kinds of work he liked, but not this. It seemed such a useless form of drudgery. Some of the dust he roused settled on the furniture, on the drapes, pictures and other decorations. A good part of it inevitably sank back into the carpet. He hated drudgery. One of his favorite pastimes was making gadgets around the house to do away with drudgery. Crude and clumsy they often were, but they worked.

"Gee! But this is a stupid job," he reflected. "We ride in automobiles, we can talk thousands of miles by telephone, we can sew and iron and work the ice-cream freezer and churn the butter by electricity. Why shouldn't we sweep with electricity?"

As he laid the broom aside he said to his mother:

"What would you give for a machine that could do your sweeping for you by throwing a switch?"

"Son," replied the lady: "I don't know what I wouldn't give. The man who did that would have the gratitude of all women. To say nothing of their money."

That gave James B. Kirby plenty of food for thought. Being of Scottish descent, he was a thrifty youth. But another question occurred to him.

"What would be done about the dust? An electric sweeper would raise thicker clouds even than a broom."

In such fashion came the birth of a great idea. Of such stuff are the men made who have revolutionized our daily life. But many years were to elapse before that particular dream could be realized. For it was the bane of Jim Kirby's youthful life that whenever he wanted to be doing something interesting, something useful, there were potentates known as teachers who insisted that he concentrate on Caeser's Gallic wars or the difference between a gerund and a gerundive or the German declensions.

The first ball bearing mill wheel.
The slightest trickle of water operates it.

Ever since he had started going to school, teachers had been thorns in his flesh. While he was still in the grammar grades he wanted to devote all his spare time to building models of machines that interested him — models that would work. Whenever a new mechanical appliance was introduced into the Kirby home, it wouldn't be long before Jim had taken it down to see what made it function. Unlike most other boys, however, he could put them together again so that they worked as well as, if not better, than before.

One of his happiest moments was on the day he completed a small-scale threshing machine. It was no

mere toy; it actually threshed the grain. This he accomplished while he was still in the eighth grade. Mixed with this precocious aptitude was an extraordinary versatility. The next task he set himself, after the threshing machine, was a miniature railway. With infinite patience he built a complete operating system, constructed perfectly to scale with lines, automatic switches and signals, stations, freight yards, a roundhouse, locomotives and cars.

Along these paths the boy's mind developed. Meanwhile the goal nearest to his heart was not mechanical science but chemistry. That was the issue on which he finally and irrevocably split with the school authorities of Cleveland. There was a momentous interview with the principal of the high school. Jim Kirby had given three years to subjects that did not interest him. Whatever they meant to the pedagogues and the Board of Education, to him they were an interruption of his education. What did it matter to him that Cicero considered Catiline a rascal? There would be plenty of time later on to know about the French irregular verbs. The great names that appealed to him were those of Faraday and Hertz and Steinmetz and Marconi.

"You will take the course prescribed for you," announced the principal.

"But sir," urged Jim Kirby, "I want to take up chemistry."

"Do you presume to know better than your teachers and the Board of Education?" demanded the head of the school.

"No sir," replied Jim, "but what I want to study most is chemistry."

"Then you're not going to get very far in this school," thundered the pedagogue. "You — and boys like you — will never amount to anything any way. So why should we bother with you?"

We have observed that young Kirby was of Scottish descent. Apparently that principal did not know about the Scots or he would have realized that it is easier to deflect the course of Niagara than to turn a Caledonian from his purpose. Perhaps it is just as well, today. Undoubtedly the lad would have become a good, maybe even a brilliant chemist. But in all probability his life would have been passed obscurely, even though happily, immured in some laboratory. And the world would have been the poorer for many invaluable inventions, appliances to make life easier and existence happier.

The news Jim brought home that day met with mixed emotions in the Kirby household.

"Glad to have had you stay in school," said the Master of the House, "but you probably have enough education to get a job and start earning a steady income."

A Pavilion on the Kirby farm. The dance floor is spring mounted, an innovation of Jim's.

"What kind of a job can you get without an education?" asked Jim's mother.

Still thinking, no doubt, of Kirby senior's steady $18.50 a week which provided them with their sense of security, if few luxuries, she added, "Working with your hands, I suppose. No business man will give a job to a boy who hasn't even a high school diploma."

"Don't want any job in an office," retorted the boy. "What's wrong about working with your hands? It's fun, if you're making something useful."

"We'll see," commented Kirby pere, taking the prerogative of the last word.

They did see. Jim asked no odds of anybody, no favors. From that time on he supported himself. He took samples of the gadgets he had made to the owner of a shop specializing in electrical devices. That worthy had the nous to perceive that he had before him a cub of rare aptitude for his business, in short, a "natural." Young Kirby got his first job.

One of the earliest assignments handed to him would have baffled almost anybody. He was asked to devise an "automatic secretary," a robot to answer telephone calls and record messages. By the most skillful and ingenious use of a phonograph that cub inventor solved his problem. The device stands registered today in the U. S. Patent Office — but not in the name of James B. Kirby. For this and numerous other appliances way ahead of their time he received the noble stipend of $10.50 a week.

Now a Scot of any age could live on such a wage at that date, live and save. But that particular Scot was looking much further into the future. He knew his head was full of profitable ideas, but he was not one of your dreamy inventors, content to spend his whole life working for others. So, after his day's work was done at the shop, he worked as a newsboy, delivering papers. After his route was covered he earned more money as a lamp-lighter, taking care of the old-fashioned gas lamps in the streets. Every night before dark he turned them on, every morning before dawn he'd have to get up and turn them off. Every Saturday

night would find him working in the press room of a local newspaper.

Meanwhile, by way of recreation, he constructed a private telephone system of his own. Making use of blank wires which had been strung by the telephone company to meet future demands, he hooked up connections which enabled him and fifteen other lads of about his own age to communicate at will without ever bothering "Central."

Out of the $10.50 a week from his employer, his wage as a newspaper delivery boy, lamp-lighter and printer's devil, young Kirby contrived to save enough to set up a shop for himself as an independent business man. He entered into competition with his former boss, developing electrical and other mechanical specialties. His hours were long, clients few, profits meagre. But at any rate they kept him going and he was his own boss. Now he could begin to realize his dream. With Scottish arguteness he perceived that the making of curious and unusual appliances, though interesting, was more or less a waste of time. What the world needed, what it would pay for, was something to eliminate some of the drudgery of ordinary daily work. The time was ripe for him to develop his idea for a mechanical sweeper — not merely a sweeper, but a machine that would eliminate and dispose of dust.

Still mulling the project over in his head, Jim stopped one day before the house next door, into

which a huge hose extended from a wagon halted at the curb.

"Here is my idea," he exalted, for there, coughing away on the horse-drawn wagon, was a cumbersome one-cylinder gasoline engine of the times, busily working a suction pump connected with a big tank from which the hose ran into the house.

It was the equipment of the local carpet cleaning contractor, an innovation which was favored by the few housewives who saw no virtue and little sense in removing quarts of tacks from heavy carpets so they could be dragged to the back yard for a beating, when there was an easier, cleaner way.

To Jim, whose mechanical bent so often turned to miniatures, there seemed enormous possibilities in making a small version of this suction cleaner, one which would work in the home when equipped with a suitable power plant for indoor use.

It was still a long step from getting the idea to working it out. The midnight lighting bills were heavy in Kirby's shop. Many an evening his dinner consisted of sandwiches, and sometimes even they were forgotten so that the young inventor might continue working until the small early hours. Many a tool was worn out, many square miles of blueprint consumed, many a design tested and thrown onto the scrap heap. But finally the first Kirby vacuum cleaner was completed.

That first brain-cum-hands-child, to be frank, was a weighty and cumbersome affair. It was of the "tank type." The task of operating it just about offset the laborious drudgery of sweeping. For the small home it was impractical, though useful in large buildings and hotels. But it worked. The basic idea was sound enough for its creator to be able to enlist capital for its manufacture and improvement. The first patent was followed by more than sixty others, each one an advance upon its predecessor.

The old "Domestic Cyclone" served its purpose until 1910. In that year James B. Kirby burst upon the market with a lighter, more portable cleaner. With the motor unit mounted at the end of the handle and a bag to separate the dust from the air, this was the real fore-runner of all present-day vacuum cleaners. Women all over the land greeted it with a cheer. Before long imitators appeared in the field, companies were organized right and left to make similar machines.

After the war, during which he did his bit as a "Dollar-a-Year Man," Jim Kirby put a new climax on his achievements with the Vacuette, a vacuum sweeper operated without electricity. More than a million of these are now in use, many of them in homes that are otherwise fully electrified.

Naturally, the vacuum cleaner was his first love, the main source of his celebrity and fortune. But the energy and versatility that we observed in his youth,

inevitably drove him in other directions. For instance, the familiar vibrator used in barber shops and beauty parlors owes its existence to the brain of James B. Kirby. Later on he turned to the home again and evolved what is believed to be the first wringerless washing machine. Instead of squeezing the clothes through the wringer, it spins the water out of them by centrifugal force.

By this time he might comfortably have rested upon his laurels and his income from dividends and royalties. Nevertheless a stream of inventions continued to pour from his fertile brain. Behind them all was one binding idea: to wipe out drudgery, to make life easier and more leisurely. Dish-washing machines, an electric radiator, a vapor-operating device for the gasoline engine, shock absorbers, ironing machines, window washers, radio loops, radio conductors, radio sockets, screw retainers, lubricating gadgets, a dry-cleaning machine — wherever you go, wherever you live, whatever you do, you are the better served because of some Kirby invention or another.

James B. Kirby today stands out as an almost unique speciman: an inventor who has prospered. In the intervals between turning out new mechanical appliance he uses his inventiveness for his own pleasure and amusement. On his estate some twenty miles from Cleveland he had a sizeable stream. But that wasn't enough for him, he wanted a lake. So he dammed the stream and produced a large body of

water, in a beautiful setting of trees, native wild flowers and shrubbery. But after every good rainfall and spring thaw he found his lake silted up. Though he is no hydraulic engineer, he devised a chain of dams and drainage ponds which automatically separates the sediment from the water and carries it off in conduits laid under the bed of the lake. Incidentally, he patented his system. Any landed proprietor who wants to duplicate it will have to see Mr. Kirby about it.

When the house was first built there was no electric service. Kirby costructed a rustic mill house with a water wheel to generate the juice. It was the first of its kind. Mounted on ball bearings, it is so sensitive that a mere trickle of water is enough to generate all the current he needed for his house and all the outbuildings. Since the wheel was installed the community has been electrified. The mill house serves today as Mr. Kirby's workshop. Here he can frequently be found at break of day, working out ideas that he has jotted down during the night in those periods of half-wakefulness when most of his inspirations are conceived. He always keeps a pad and pencil at his bedside.

Men of scientific bent are, almost invariably, profound and genuine lovers of nature in all its forms. After all, their lives are given to discovering, working out and developing the natural laws. Kirby has a particularly keen interest in wild life. His lake is

stocked with various fine specimens of fish, not to be killed and eaten but for observation and as pets. Some of his guests are astounded when they see large catfish coming, apparently at his call, to have their backs scratched and blue-gills allowing themselves to be grabbed by a human hand and taken from the water. Frankly, I was a trifle incredulous when I heard about this. I mentioned it to an Irish friend of mine, the owner of an estate in the old country full of salmon and trout preserves. He was not at all astonished. "We call it tickling," he explained "trout-tickling. Poachers do it on my place, damn 'em. Get more trout and salmon that way than they do with night lines or rods. Never before heard of a man doing it for fun."

Only one invention of Kirby's is a complete flop. That is the "bloodless fox hunt." He had one experience of big-game potting which convinced him that it was a stupid, footling pastime. So he devised his bloodless fox-hunt for the benefit of such of his friends as insist upon the "pursuit of the uneatable." The idea is to chase Bre'er Fox with a pack of beagles, the manpower following on foot. Reynard knows the beagles can't catch him, so he takes his time. He has fun and lives to run another day, the hunters get exercise and a good view of the scenery, and nobody is any the worse off. So far, Kirby hasn't been able to interest anybody in this invention. It is not included in the more than two hundred patents which he holds!

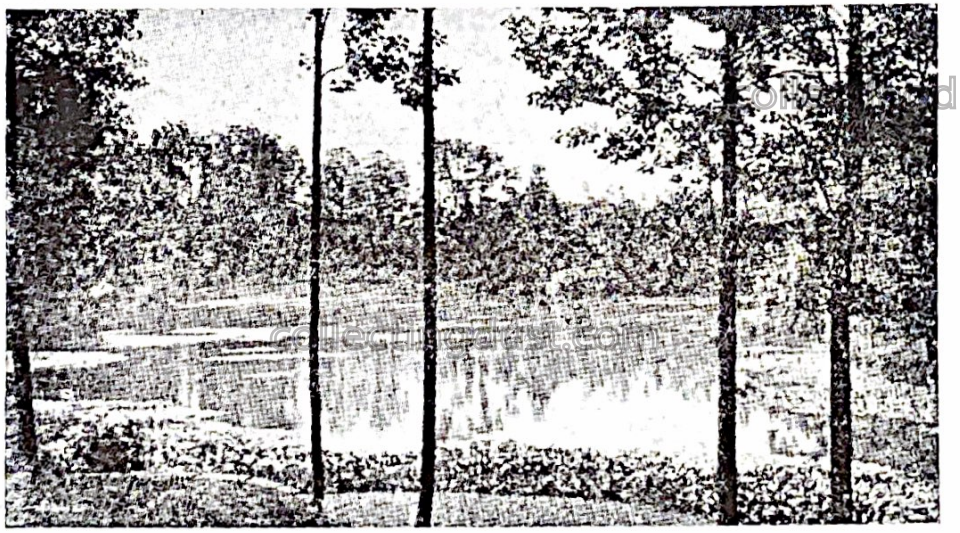
Lowell Thomas

TO ADD TO MR. THOMAS' ARTICLE ABOUT ME—

by James B. Kirby

THERE is a hackneyed old saying about people who "can't see the forest for the trees," or something to that effect. I find, upon reading the interesting article Mr. Lowell Thomas has built up around my experiences, that this is very true of myself.

At no time did I ever feel that the things which were happening to me and the things I was striving to do would some day add up in story-book style, as they seem to have done under the able Thomas handling. Actually, the most fascinatingly interesting of my experiences and one which is still going on, seems to



The self-clarifying lake on the Kirby farm. It is patented.

me to be my business association. My biographer hasn't mentioned it, but I want to talk about it.

It came about through my having been a "dollar-a-year-man," during war time, when my mechanical experience led to my appointment as a Government Inspector of War Materials for the Cleveland area.

Some extraordinarily fine precision tools and dies were being produced by two men, George H. Scott and Carl S. Fetzer, who were operating a partnership factor which had the contract for the Government work that required my supervision.

I became well acquainted with these men and felt that the Scott and Fetzer Company were admirably qualified to manufacture my vacuum cleaner developments. We quite easily came to an agreement and, in 1919, we started the manufacture of my non-electric Vacuette, which had never been on the market.

Astonishing success came to this venture and more than two million of these cleaners were sold in the United States and abroad. More than one million of these, we understand, are still in use.

There followed a succession of developments. An electric cleaner which was a distinct departure from previous types was next and it met with great success from 1926 on until I produced the "Sani-Em-tor." This device, which simplifies emptying the cleaner

bag, allows it to be done without fuss or muss of flying dust and even without removing the bag from the cleaner.

The "Sani-Em-tor" became a big feature of our then newest cleaner, the Scott and Fetzer Sanitation System, which we first marketed in 1930.

We had made it a policy to allow other cleaner manufacturers to make use of various of my patents in their machines, and I finally got to thinking in terms of doing something along unusual lines, something that we would keep for our own and would manufacture exclusively.

Working in this direction I finally had a model ready to show my associates. When they saw it, and put it through its many paces on an exhaustive and intensive scale, they not only agreed to manufacture it but insisted on doing me the honor of producing it under my name.

I'm mighty proud of the Kirby, not because it is named for me so much as for the fact that it does revolutionize home cleaning methods, doing it more thoroughly, completely and easily than has been possible in the past.

Jim Kirby