

THE HOUSE OF KRUPP—A STEEL PROP OF THE KAISER'S THRONE

The Great Concern Which Has Equipped Germany's Army with Death-Dealing Engines Had Its Inception in the Cottage and the Forge of Friedrich and Alted Krupp.

By P. A. HUTCHISON.

A GAIN and again in the history of warfare has a nation or a power numerically inferior won out against—even conquered—the power or the nation having numerical superiority. Often, of course, such victories have been achieved through sheer bravery in the face of odds, but more frequently they have been the result of some preponderating superiority in equipment or arms.

Thus the Huns conquered Europe because as cavalry the Huns were unequalled. The English at Flodden vanquished the Scots because their bows were stronger and their arrows longer. But not all the bows and arrows in the world could withstand a few muskets with gunpowder and ball. In the same way the armored Merrimac drove the wooden fleets from the sea; the Monitor whipped the Merrimac.

So the German armies of the Kaiser succeed in winning the present war it will be a repetition of this world-old story—a numerically inferior force better equipped. When the Confederates took the Union frigate Merrimac, burned to the water's edge, and erected on the hull a fort sheathed with railroad iron, they took the measure of the past, threw it into the discard and opened a new account with the future. Similarly did the Kaiser discard the past and discount the future, when, after taking the measure of the French and Belgian fortifications, he drew up his "caterpillar" guns and blew them to pieces.

THE HISTORY OF GERMAN EMPIRE INTERWOVEN WITH HOUSE OF KRUPP.

But although these monster engines have stamped on them the imperial eagle, they bear also the name of a commoner—the name of Krupp. One does not usually associate romance with anything so prosaic as the founding of metals, with the heat and the smoke and the grime of forge and hammer (one does not to-day associate romance with anything that has to do with war), yet behind these guns of Krupp lies a human drama that is very like to romance, a footnote to the history of Germany, which is almost more than the history itself. The history of the German Empire and that of the firm of Krupp are inextricably interwoven. It is royalty dependent on a commoner for its crown. Time alone can tell how strong the support will prove, for it will be the Krupp guns, not the German soldiery, that will hold in check (if they be held in check) the allied hosts, the Russian hordes.

It was about a year after the death of Friedrich Krupp—the last in the male line of the founder of the great works—that I had the pleasure of visiting at the Krupp villa, Kügel-au-der-Ruhr, near Essen.

Not being aware of the private railway station at Kügel, at which I could have arranged to have the train stop, I went on to Essen, where I was met by one of the secretaries of Frau Krupp. At the station it was as uninviting and as humdrum as only the station of a manufacturing centre can be. But the pair of stout carriage horses (the late Herr Krupp had had something of a passion for horses) took us further and further from the railway and along a road that grad-

ually ascended, until soon all the vast scene of industry was spread out below—acre upon acre of smoke blackened buildings, a wilderness of stack and chimneys from which smoke curled, and, over all, the pall of smoke shot with the rays of the afternoon sun.

Then the road made a sharp turn, and we entered the spacious grounds of the estate, now rolling along avenues arched with great trees, now skirting undulating lawns where peacocks strutted. At last the villa ("palace") would be more fittingly was in sight, huge and square, Italian Renaissance in style, of marble, with wide marble steps leading easily to the arched doorways. It being summer, there were no guests except Frau Krupp's artist brother, the Baron von Ende, of Munich, and his wife. But for this I was not sorry, as I had come to meet the family of the cannon king, not princes or diplomats. After coffee—the Germans insist on their afternoon coffee, as the English insist on their afternoon tea—in company with the secretary and Fraulein Bertha (now Frau Krupp von Bohlen) I was driven to the works.

Now in the hands of a woman (for Frau Krupp von Bohlen is the head of the firm), curiously enough, the great Krupp plant was founded by a woman—at least, all the vast enterprise of to-day is the direct result of the enforced entry into the iron business of Amelie, widow of one Hermann Krupp, of Essen, more than a century ago. This Hermann Krupp, who seems to have been a prosperous merchant, had held a mortgage on a small foundry in the nearby village of Sterkrade, and the widow, to protect herself, found it necessary to buy in the property and to operate it. After eight unsuccessful years she was herself obliged to sell. In the meantime, however, her grandson, Friedrich, had learned the trade of ironworker at her little plant, and when that was disposed of he determined to go into the business for himself. Accordingly, he erected a small water driven forge at Essen, where now the great plant stands.

FRIEDRICH KRUPP DISCOVERS THE SECRET OF CASTING STEEL.

It was the period of the Napoleonic wars, when Europe found itself largely cut off from English products, the embargo on cast steel being especially rigid. Cast steel was indispensable in the manufacture of high grade tools—and the secret of casting steel was known only in England. German iron men set themselves to work to discover the secret for themselves, among them this Friedrich Krupp. That was his reason for erecting the forge at Essen, for he had already made experiments at Sterkrade, experiments he wished to continue. In 1815, just as Napoleon was being defeated at Waterloo, he discovered the method. It would have seemed that the future was secure.

But, as has been so often the case with the captains of industry, pecuniary reward did not follow. His steel was, indeed, beyond reproach. In 1822 an official report on his product by the Bureau of Manufactures and Commerce at Berlin certified that his steel was found to be "in adaptability and intrinsic excellence" fully equal to the best English steel, in some respects even preferable.

Yet the report, however flattering, did not increase the demand, which remained pitifully

small. Krupp's money was rapidly disappearing. An unfortunate partnership formed in 1816 had cost dearly, for Krupp, in order to dissolve it, had been obliged, under the law, to pay heavily for that privilege. His enterprise was on the verge of ruin. He was forced to sell the substantial family house and to move into a story and a half cottage beside his forge.

This cottage is still preserved, just inside the entrance to the modern plant, as being the most fitting memorial possible to the patience, perseverance and genius of Friedrich Krupp. In 1873 the son, Alfred, placed above the doorway a tablet saying in part:

"Fifty years ago this laborer's cottage gave a refuge to my parents. May no workman of ours ever experience the sorrow which was theirs! May it increase respect for small domiciles and sympathy for the great cares that often dwell therein. . . . The goal of labor should be the common good—for then labor brings blessings, for then 'to labor is to pray.'"

Only four years after the pronouncement from Berlin on the superiority of his steel Friedrich Krupp, still under forty, but worn out by poverty, disappointment and toil, died, leaving a wife and four children. Alfred was the eldest of these children.

But fourteen years of age, Alfred had already, out of school hours, labored beside his father. He could handle the crucible and work the forge. And to him had been confided the precious secret of casting steel. When the will was read it was found that the mother was to continue the establishment under the name "Friedrich Krupp," with Alfred as manager. So the lad put aside his books and buckled down. For fifteen years he earned barely enough to pay his workmen, although they numbered but ten and the maximum wage was about 18 cents a day. "Potatoes, beans and bread," he afterward wrote, "were my only fare. No meat. And I had no other recompense than the consciousness of duty done."

THE LONG INTERVAL WHEN THERE WAS NOTHING TO BE DONE SAVE WAIT.

It was in 1847 that Alfred Krupp turned his thoughts toward gun making and produced his first gun—a three-pound muzzle loader. He sent it to the Ordnance Board at Berlin, which, however, allowed two years to go by before making any report. Then it was gracious enough to acknowledge the fine metal and workmanship of Krupp's product. But it gave him no orders. Moreover, Germany had experienced a year of financial crisis, and Krupp's situation was very grave. But he was able to pull through, and a few years later the tide turned, and he became a made man almost overnight.

It was in the field of railway invention that Krupp came into his own, for to his fertile brain was due one of the most important innovations in rolling stock construction. Many accidents had occurred as the result of car wheel tires breaking at the point where the ends of the tire were welded together. Krupp invented a welded tire.



Neal A. Truslow

CAPTURE OF A GERMAN SIEGE GUN.

"DEAN OF AMERICAN JOURNALISM" IS DEAD

By FRANCES FISHER BYERS.

THERE has just passed away at Fonda, N. Y., a remarkable and interesting personality of American journalism—the Rev. Washington Frothingham, journalist, author and philanthropist, known to the public only as "the Hermit of New York" and more often called by his profession the dean of American journalism.

High on the hills of Fonda overlooking the Mohawk Valley stands the colonial mansion of historic associations which was built by Jellis Fonda 125 years ago, and which was the home of Dr. Frothingham for sixty years. For seventy years he gave pleasure to thousands who knew him only through his books and newspaper correspondence and nothing of his wonderful personality, which he successfully concealed by styling himself a hermit. Of a deeply religious and reticent nature, he studiously avoided publicity in any form, especially shrinking from newspaper notoriety and consistently refusing to be interviewed on any subject. This accounts for the fact that so little is known of a man whose literary output has been enormous and whose journalistic career covered nearly three generations.

THE HERMIT BREAKS THE LONG HABIT OF SILENCE.

Through the courtesy of his favorite niece, a personal friend of the writer, he broke his long silence and consented to be interviewed in his ninetieth year. Since then it has been my privilege to visit him on several occasions. The last time I saw him was at a patriotic celebration in Fonda one mellow Indian summer day three years ago, when the Daughters of the Revolution unveiled a monument commemorative of a Revolutionary battle and upon which occasion he had been the orator of the day.

After the meeting, together we climbed the steep village street—he with the strength and agility of a man in his prime, although the way was grass grown and roughly paved. Later, seated on the broad veranda of the mansion, facing the quaint old-fashioned garden, where the hollyhocks and four-o'clocks glowed against the dark background of boxwood hedges, Dr. Frothingham became reminiscent and talked of his friendships with William Cullen Bryant, Longfellow, N. P. Willis, Washington Irving and other celebrated men of past generations. Of Irving, who was his great-uncle, he said: "He was the most beautiful literary character I have ever known. Some of the happiest days of my life were spent with him at Sunnyside."

His contributions to "The Knickerbocker" (New York), published in the early part of the last century; also "Harper's Weekly" and "Monthly," "The New York Tribune," "The New York Times," "The Herald" and "The Evening Post" brought him into close personal relations with George A. Dana, Horace Greeley, Henry Redmond and James Gordon Bennett, Jr.

Speaking of men in public life and their influence upon their own and succeeding generations, his words, as I recall them, were prophetic of the present world-wide disaster and this nation's attitude of neutrality toward all. "No public man can be estimated until after he is gone. During his lifetime we cannot measure him by the right perspective. I remember when no man in political life was more abused than Lincoln—Lincoln now exalted and deified. I saw him at Albany once when I felt only the profoundest pity for him. It was on the occasion of his great speech before the Governor and the assembled authorities. Ma-

igned and bitterly assailed at that time for espousing an unpopular cause, he was overcome with emotion as he entered the city and saw a large banner stretched across the main street bearing the inscriptions, 'We will pray for you,' which was an assurance to him, weighed down with his great burdens, that some part of the people at least had faith in him. At that time I was pastor of the church in Fonda, in a region known as 'copperhead' in its political sentiments, and I myself, therefore, was bitterly assailed for championing Lincoln from my pulpit." He went on to say that the longer he lived and studied local and national conditions of government throughout the world the more apprehensive he became for the peace and security of the future. He said that the tendencies of the present day were destructive. To quote his words: "Greece and Rome grew up and had their glories and passed away in destruction. We must train the rising generation in the fear of the Lord if the race is to be perpetuated and the government stand. Those nations which ignore the teachings of the great Peace Maker are doomed to destruction. There will be wars and rumors of war before we have universal peace."

HISTORY OF THE FRENCH REVOLUTION PUBLISHED IN 1867.

Dr. Frothingham was the author of several books of distinct literary value. In 1867 he published a unique history of the French Revolution, the material for which was gathered by an exhaustive reading of "The Monitor," the daily newspaper published in Paris during the Revolution, and copies of which are kept in the State Library at Albany. This history ranks second only to Thomas Carlyle's. He also published several other books, one of the best known being "Our Book; or, Literary Rambles of a Journalist." This was a collection of his letters, essays and sketches on various literary and timely topics. The book went into its third edition. It was originally published at the earnest solicitation of the late Charlemagne Tower, in 1838.

Dr. Frothingham at one time contemplated writing a life of his uncle, Washington Irving, and with that end in view compiled a great amount of data, including personal reminiscences of his famous kinsman. Unfortunately many of these papers were destroyed by a fire which occurred in the house adjoining the old Dutch mansion where he died and in which he was living at the time. If any of his notes and correspondence with Irving have been saved it is to be hoped that his heirs will give them, a priceless gift, to the American world of letters.

Washington Frothingham, like Paul of Tarsus, was small of stature, but a giant in intellect. His knowledge of books and men was a veritable encyclopedia of information, classic and modern, and yet he had his fads and hobbies like all great people. One of these was swimming. Calling upon him one warm June day—he was then eighty-nine years old—I found, incredible as it may sound, that he had just returned from his daily swim with the village boys, for whom and the public he maintained at his own expense a fine bathing pavilion and pool and bowling alleys, which he had endowed for future maintenance for the use of the people of Fonda. As he came briskly into the house he said with his sweet, whimsical smile: "You might say to your readers that I am the oldest swimmer in this country, as well as the oldest journalist."

Dr. Frothingham's private benefactions can never be estimated. It was his life practice to give away more than half his income each year.



FRAU KRUPP VON BOHLEN.



HERR KRUPP VON BOHLEN.

PHOTOS BY UNDERWOOD AND UNDERWOOD

Instead of taking a strip of steel, as had been the practice, bending around the rim of the wheel and welding the ends, he took a disk of steel, punched a hole in the middle and expanded the rim until it would fit over and could be shrunk on the wheel. This process he patented, with the result that he quickly became rich. He increased his plant, married and moved from his humble quarters to that part of the city in which his father had been born. By 1860 Krupp's little force of 25 had increased to seventeen hundred.

HE BECOMES THE MOST CELEBRATED METAL WORKER OF THE WORLD.

In this decade, moreover, Krupp became the most renowned metal worker of the world, accomplishing in two directions what had hitherto been believed impossibilities. In the first place, he increased the size of steel castings to unbelievable degrees. Castings weighing a ton had been held the maximum that could be made. Krupp exhibited in London in 1851 a steel casting weighing two tons. And at Paris in 1855 he exhibited a casting weighing five tons. Even more important, however, was his second feat. It had been maintained that cast steel could not be forged—that it would break under the hammer. Krupp forged a piece of his cast steel ingot under the very eyes of the doubters, and opened a new world for metallurgy. Governments showered medals and honors on him; kings were eager to honor him. In 1864 the King of Prussia offered him a title. But Krupp refused it.

In the meantime Krupp as a gunmaker had not been idle. In 1855 he had exhibited at Paris a twelve-pound shell gun which attracted so much attention from the French government that trials of the gun had been held at their request, trials which Krupp attended in person. But although the superiority to the French guns of the day were amply proved, Krupp was given no orders. Had France in the following decade obtained at least a portion of its heavy ordnance from Krupp

and so been enabled to keep up with his improvements, the story of 1870 might have been different.

It was in the early days of our Civil War that Krupp revolutionized big gun making. Had either side known of and adopted his inventions how quickly would the war have closed! Krupp's big gun of 1855 had been a muzzle-loader—his gun of 1862 loaded at the breech. That tells almost the entire story, but not quite.

The full story is that Krupp invented a breech-loading gun that fired out of the muzzle, one that did not explode backward, killing the handlers and destroying itself.

WAR PROVES WHAT PEACEFUL TIMES WERE SLOW TO ESTABLISH.

Krupp did not invent the breech-loader. Indeed, breech-loading guns were first thought of as far back as the middle of the sixteenth century; but the trouble with them always was that they worked both ways with equal facility. Krupp took what was known as the Cavalli gun, the invention of a Sardinian officer by that name, and experimented with the breech block until finally he devised a flat wedge lock that would not blow off. This achievement was as momentous for the future of heavy ordnance as was Ericsson's invention of the armored and revolving turret for the future of naval construction. Krupp also improved the methods of rifling the bore, and to his experiments is due much of the effectiveness of modern firing. A little later he conceived the idea of making the gun barrel, not of a single piece, but of several tubes shrunk on over one another.

And yet it was years before the worth of Krupp's inventions was acknowledged, even in Prussia, although Prussia had placed a number of his defence guns in various fortifications. England, although Krupp had exhibited his rifled breechloaders in London in 1862, would not even consider them. Woolwich continued to turn out muzzle loaders of ever increasing size. Finally,

however, in 1862 a comparative test of the two types of gun was arranged at the proving grounds near Berlin, but even Prussian officers made no concealment of their expectations as to the result. Probably Krupp alone was not astonished, for his gun led, not only in accuracy and power, but in endurance as well. From that day the muzzle loader was consigned to the scrap heap. Two years later Krupp artillery thundered at Sedan. Krupp siege guns at Strasbourg and Paris, and Krupp gave his king an empire. The French infantry outshone the Germans, but their artillery was sorely outclassed. Strange that they had not heard of the tests at Berlin and prepared! Stranger still that they should not to-day, remembering 1870, have been prepared for the "caterpillar" by anticipating and equalling it! Strangest of all if our own government ordnance boards do not take this history to heart and profit by it! If Krupp has perfected a naval gun at all comparable to the machine which battered down Liege and Namur and Antwerp the number of her ships will do England but little good.

So much for Krupp the cannon king, the maker of death-dealing engines which have changed the maps of the world. Between 1847, when he made his first cannon, and his death, in 1887, Krupp delivered 23,000 pieces of ordnance (the firm has never gone into the manufacturing of small arms) to thirty-four different states and kingdoms. But it is now time to turn from Krupp, the maker and the unmaker of kings, to Krupp, the maker of men, to Krupp, the humanitarian.

When Alfred Krupp engraved over the doorway of the laborer's cottage that had housed his parents in their days of poverty, "May no workman of ours ever experience the sorrow which was theirs," it was no idle phrase. He meant exactly what he said, for as soon as affairs mended and the future of the works was assured he took steps to turn his words into deeds. And as he not only had worked shoulder to shoulder with them in his younger days, but had also dwelt among them, he knew their needs. Indeed, he knew only too well

how hard sickness and old age bore on them; how ill they fared, and what exorbitant prices they were obliged to pay for food; how miserably they were housed. Accordingly, his plans for their betterment related primarily to the amelioration of these elemental conditions.

A fund for the sick and disabled and the provision of pensions for the aged were the next schemes put into operation. This was as early as 1853, when the firm employed about 500 men. But this was not a charity. To one so jealous of independence as Alfred Krupp charity was unthinkable; to force dependence on another would have been, to his way of thinking, hardly short of immoral. For him the only true charity consisted in helping others to help themselves; he would co-operate, not pauperize. He established the fund, that is true, but each man contributed his little. In other words, it was insurance, but guaranteed.

Soon after this he took up the matter of supplies, establishing first a bakery, then a grocery store, then shops for boots and shoes, drygoods and clothing. Last of all, even an abattoir and butchers' shops. But this last was not until 1875, when the employes numbered fully 15,000. Goods were sold at cost, but payment had to be in cash. There was no deviation from this rule. Thus a premium was placed on thrift, on independence and on solidarity.

Books by the score have been written on Krupp's houses for workmen, and they have become the model for employes' villages in all parts of the world. Krupp insisted on three features—perfect sanitation, comfort and a reasonable degree of beauty. There are now four of these settlements or hamlets—one of them, Altenhof, for the aged—with houses at various rentals for all grades of workmen. Each village, moreover, has its schools, churches, a beer garden, a gymnasium (turnhalle) and playgrounds. There is also at Essen for the employes a free library of many thousands of volumes.

UNDISTURBED BY A DAZZLING ARRAY OF TITLES AND JOBS.

Krupp, who could have had any title, any post in the empire—for none was closer to the Kaiser than he—was averse to politics and shunned publicity. In his latter days he was the richest man in the realm and the most modest. His magnificent house was open to prince an commoner alike, and to all he remained, and insisted on remaining, Herr Krupp.

In the late 70's he began to participate less actively in the affairs of the "firm," as it was called, although up to that time he himself had been the firm. This was from no weakness of age, for he was hale beyond his years. He wished the plant to become independent of him and to learn to go on by itself. This change in organization was eventually brought about, Friedrich, Alfred Krupp's son, and in her turn his granddaughter, Bertha, being but presidents over boards of directors rather than owners.

Alfred Krupp died in 1887, and was buried from the "laborer's cottage" that had seen his early struggles. Probably not in the history of the world has there been another industrial monarch of such wide influence—unless, perhaps, it be Edison. Yet if a new Dante should write a new "Inferno," and that Dante's sympathies were with the Allies, he probably would consign the line of Krupps to the lowest circles. Fortunately, our neutrality allows us to appreciate achievement as achievement and to feel mightiness of mind, courageous will, whatever the result.