



MRS. KRUPP-VON BOHLAN, ONE OF THE OWNERS OF KRUPPS

KRUPP SCANDAL AMAZES GERMANY



THE ORIGINAL KRUPP FACTORY



Dr. Liebknecht

GERMANY'S excitement over the Krupp scandal is not due alone to the rarity of graft cases in that country, or to the fact that it touches her in her most sensitive place—the army. It is due partly to the fact that the Krupp establishment has come to be looked upon as a national institution, and that every German has been immensely proud of it as one of the glories of the Fatherland.

And now to discover that this great industry has stooped to the bribing of officials—a fact admitted by the Krupp firm, after the charge had been made in the reichstag—and that it had been supplying French newspapers with material for war-scare articles, so as to induce the German government to buy more armament from the Krupps, is more to Germany than a scandal. It is a catastrophe.

The charges were made in the reichstag by Dr. Liebknecht, the Socialist deputy, and in the columns of the Vorwaerts, the Socialist newspaper. It is a coincidence that it was that newspaper which ten years ago printed another scandalous story about the Krupps, which caused the death of the then head of the works, Friedrich Alfred Krupp.

It was impossible to refute him, because the minister of war, Gen. von Heeringen, was obliged to admit then and there that an inquiry was going on which had already revealed that "one of the Krupp officials" had bribed officers to reveal certain information. The following day the Krupps issued a statement in which they admitted that their representatives in Berlin had maintained "friendly relations" with their former "comrades" of the war department for the purpose of obtaining "business information," and had bestowed small present "on certain under officials."

It was on Friday that Liebknecht exploded his bomb and forced von Heeringen to reveal that secret inquiry and on Saturday that the Krupps made their admission of bribery. On Sunday the Vorwaerts published the text of the instructions sent by the Deutsche Munitions und Waffenfabrik to its Paris agent to "leave no stone unturned" to persuade some popular French newspaper to publish a statement that France intended to double her orders for machine guns. The object was to get the German government to order machine guns from the Deutsche Munitions und Waffenfabrik.

On Tuesday the popular indignation had risen so high that Gen. von Heeringen's plea for a suspension of judgment until his private inquiry had done its work was forgotten. The budget committee of the reichstag voted to appoint a parliamentary commission of inquiry into the scandal. This commission, however, despite the protests of the Socialists, was not vested with power to send for persons and papers.

Although the Krupp works date from 1810, when Friedrich Krupp established his forge at Essen, it was his son, Alfred Krupp, who was the real founder of the industry. Friedrich died practically bankrupt in 1836, leaving little more than the secret of his cast-steel process to his son, and it was 30 years before any striking results were achieved.

It was in 1810 that Friedrich Krupp purchased a small forge in Essen, where he devoted himself to the problem of manufacturing cast steel, but though the article was put on the market by him in 1815 it commanded but little sale, and the firm was anything but prosperous. He employed only three workmen.

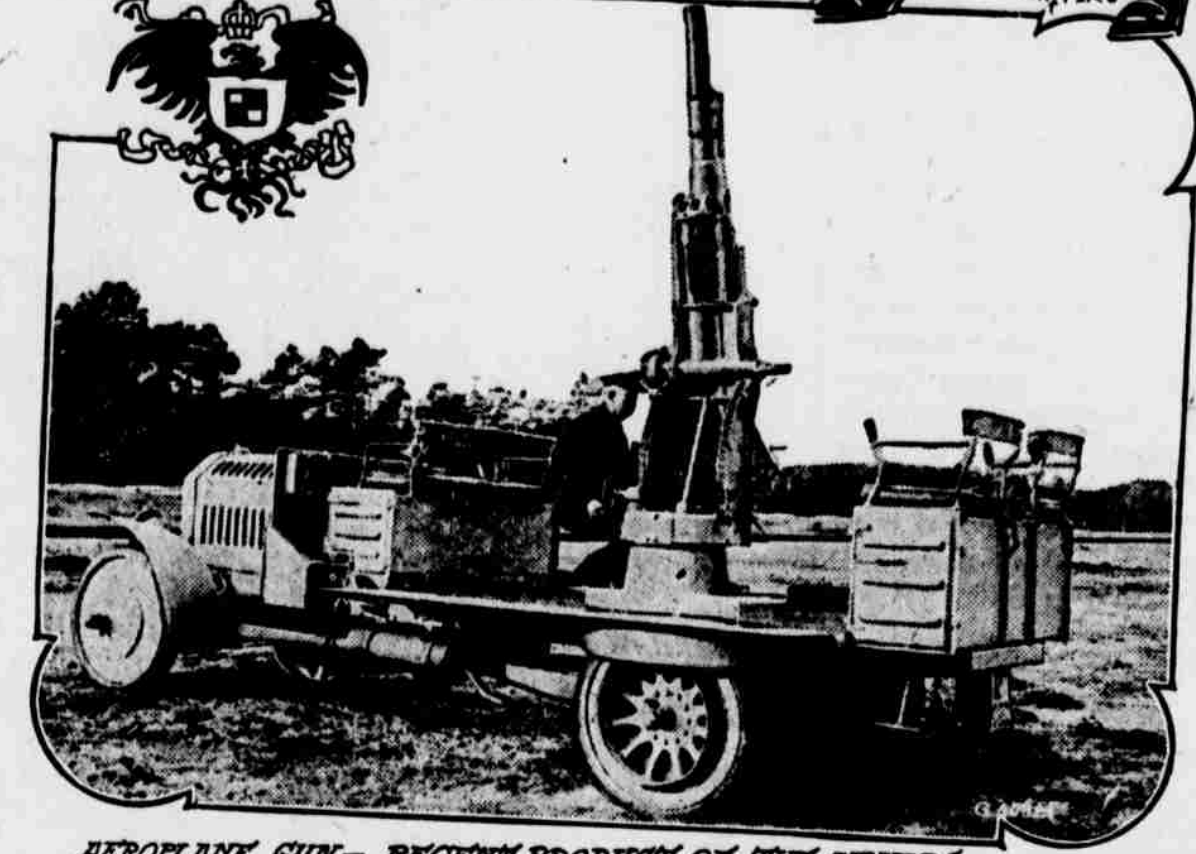
Alfred Krupp was born April 26, 1812, and at the time of his father's death was only fourteen years old. His mother carried on the works until Alfred reached his majority, so that twice in the history of the works they have been managed by women. The present head of the industry is Bertha Krupp, the granddaughter of the woman who became its manager in 1826.

The Krupps had so little money that Alfred, on his father's death, was compelled to leave school to assist his mother. He displayed a phenomenal aptitude for the foundry business, and the works developed with increasing rapidity after his influence was felt in their management. By 1848 the firm had expanded so that 122 workmen were employed.

As late as 1848, the year in which his mother relinquished the sole management of the works into his hands, he melted the family plate to pay his workmen. Today the mighty industry furnishes employment to a majority of the workmen of three cities and a dozen coal and iron mining towns. The ships built from it, equipped with its steel, and armed with its cannon, are on all the seas, and wherever steel is used the name of Krupp is known. The capital of the firm now is about \$60,000,000.

It was in 1847 that Krupp scored his first real success, when he made a three-pounder muzzle-loading gun of cast steel. At the great London exhibition of 1851 he exhibited a solid flawless ingot of cast steel weighing two tons, thus establishing the fact that an important firm existed in Germany capable of turning out samples of excellent workmanship. The Essen works were everywhere spoken of, and the output watched with the closest interest. The manufacture of welded steel tires for railway vehicles was another invention which followed soon after.

The making of heavy ordnance, which has made the name of these works famous the world over, was not then a prominent part of the business. One of the first large orders he got for firearms came four years after the London exhibition, when



AEROPLANE GUN—RECENT PRODUCT OF THE KRUPPS

Prussia gave him the contract for her new breech-loaders. The Khedive of Egypt followed this with a large order for war material, and Russia followed with contracts for large quantities of new weapons.

While the Essen works were designed for general foundry work, the output for many years has consisted almost entirely of heavy guns; but it was not until 1846, 20 years after his father's death and 36 years after the founding of the firm, that Alfred Krupp began gunmaking. His first results were pieces of small caliber. As he became interested in the science, and as his discoveries in steel casting developed, the size and weight of the cannon he was able to construct increased steadily until these war monsters, which have become world-famous, became common occurrences in the Essen works.

The Krupp field gun is the basis of the mobile artillery of Germany, Austria-Hungary, Italy, Russia, and Turkey. Under the administration of Friedrich A. Krupp, Essen turned out the great pieces which guard Germany's fortresses and are mounted in her coast defenses. Krupp answered Krupp from the emplacements of Port Arthur against the siege batteries of Japan. And side by side with the instruments of war Essen placed a thousand and one steel products, illustrating Alfred Krupp's first and chief maxim: "No good steel without good iron," used in today's tools, machinery, railroads, and ships.

Krupp ordnance has roared all over the world. Some of the guns that fired at Dewey's squadron at Manila came from Essen. The siege guns used in the Franco-German war and in use at the bombardment of Paris were from this factory, and the Parisians' terror of them was not diminished by the memory of one of the Krupp masterpieces which had been exhibited in their city in 1867. It weighed 15,000 kilograms, and made away with \$800 worth of powder and iron every time it was fired. After that war the Krupps refused to make cannon for France.

As the business grew collateral industries were developed, and Essen, which had been a tiny village, expanded to a town of over 100,000 inhabitants, all dependent on the Krupp industries. Coal mines, coke ovens, iron mines, steamships, railroads, and blast furnaces were bought. In 1872 Alfred Krupp owned 414 iron ore diggings, and when his son Friedrich died he owned over 500.

Upon Alfred's death, July 14, 1887, Friedrich A. Krupp became the head of the establishment. It has been said of him that he devoted himself to the financial rather than the technical side of the business, but in 1902, at the annual meeting in London of the Iron and Steel Institute, the Bessemer gold medal for scientific research was awarded to him. This is one of the highest honors that can be paid to any man in the iron trade. It was given to him for his discoveries in the manufacture of armor plate. The son was thus following in the footsteps of his father.

Both Alfred and Friedrich A. Krupp declined titles. One was offered to the father by King William, afterward Emperor William I., in 1864, and William's son, the present emperor, renewed the offer to Krupp's son. Neither would accept.

At the time of his death he was by far the richest man in Germany, and was called "the German Morgan." The imperial income tax returns showed that in the year before his death he had a yearly income of between 20,000,000 marks (\$4,760,000) and 21,000,000 marks. The second wealthiest man in the empire had an income of only 5,000,000 marks.

He directed in his will that the firm should be changed into a stock company. This was done, but Bertha Krupp, his daughter, who married Dr. von Behlen and von Halbach, holds all but four shares of this company. She is not only Germany's wealthiest woman, but its wealthiest subject and greatest taxpayer.

Hence she has been called "the Queen of Essen," and "Our Lady of the Cannon," and other romantic names. At the age of eighteen there descended upon her the greatest industrial inheritance the world has yet known. She was sixteen when her father died, and attained her majority in 1904.

Essen is a city now of 150,000 population, and it owes its existence as a city to the Krupp works. But there is hardly a city in the world which is governed more in the communistic spirit than this. It is one of the very earliest places in which co-operative stores were established. They have been in existence there for over 50 years. "Bertha Krupp," says one writer, "may be the 'queen' of Essen, but her workmen conduct their own affairs without molestation. She limits her 'interference' to gifts of money, by which institutions of mutual good to the workmen may be established."

From the three men whom Friedrich Krupp employed, the 122 whom Alfred Krupp had in his employ 20 years after he took charge, the force working for the Krupps had grown to 50,000 at the death of Friedrich A. Krupp in 1902. The establishment now comprises 60,000 workmen and 6,750 engineers and clerks.

The works comprise five separate groups, the first of which is the Essen Steel works, with proving grounds at Meppen, Tanger-Hutte, and Essen. This group includes the Miuhofener-Hutte, with its four blast furnaces; the Herman-Hutte, with three blast furnaces, and the Sayner-Hutte, with coal and iron mines.

The second group is the Friedrich-Alfred Iron works in Rheinhausen; the third, the Annen Steel works; the fourth, the Gruson Machine works, at Magdeburg-Buckau, and the fifth, the Germania shipyards, at Kiel.

The Essen Steel works alone comprise some sixty-odd departments, covering an area of about 500 acres, and housing 7,200 machine tools, 17 roll trains, 187 hammers, 81 hydraulic presses, 397 steam boilers, and 569 steam engines, more than 2,200 electric motors, and 900 cranes.

Almost in the center of the Essen works stands the original Krupp factory and a family house, maintained intact, in accordance with the directions of Alfred Krupp. It bears this inscription:

"Fifty years ago this cottage was the home of my parents. May none of our workmen have to go through the struggle which the building up of these works has cost us. The success which now so splendidly has rewarded our faith, our anxiety, and our efforts, was doubtful during twenty-five long years.

"Let this example serve as an encouragement to others in difficulties. May it increase the respect for the many small houses and the great sorrows which often dwell in them.

"The object of work must be mutual welfare; the work is blessed, then work is prayer. May all, from the highest to the lowest amongst us, work with the same earnestness to found and secure his own future success. That's my greatest wish.

Essen, February, 1873, twenty-five years after my assuming charge. ALFRED KRUPP."

CROP OF IMPORTANCE

Always Good Demand in Large Cities for Cabbage.

Considerable Stimulus Given Growing of Crop in Recent Years by Sauerkraut Factories—Disease Resistant Strains.

The cabbage is a native of western and southern Europe and has been used for human food from time immemorial. All of the types of cabbage, cauliflower, brussels sprouts, collard and kale have sprung from the same original source. The wild type is still growing on the chalk cliffs of the English channel. On the cliffs of southeastern England is now found a plant similar to the Georgia collards.

The cabbage crop is a very important one, large quantities being grown by farmers and truck gardeners for the markets of all the large cities, where it is used largely for immediate consumption. There is always a good demand in the large cities in late summer and early fall for cabbage. It is very difficult to get data of the acreage, yield and average value of



Use of "Resistant" Cabbage Seed Saves Crop. (A) "Cabbage-Sick" Field (Racine, Wis.) in 1911, Plants Nearly All Destroyed. (B) Same Field in 1912, Plants Grown From "Resistant" Seed.

the crop grown by those who cater to these demands. The prices vary greatly according to the season and location. The price per ton, as indicated by fifteen correspondents catering to the trade of different cities, varies from \$5 to \$15. During the past few years, considerable stimulus has been given the growing of cabbage through the sauerkraut factories, many of which contract at fair prices for the entire output of cabbage.

Many growers maintain that a cabbage crop of nine tons per acre is a better paying crop than corn, wheat or oats under fair yields.

In some sections near the large markets, many growers have been driven out of business, so far as cabbage culture is concerned, through the ravages of certain fungus diseases affecting this plant. Much hope is entertained of the possibility of securing disease-resistant strains.

This is a work that requires several years for positive results. Sometimes it is desirable even after securing resistant plants to cross-breed these with marketable strains, as it is often the case that resistant strains or varieties are not high yielding or of desirable quality. It would even seem profitable for growers to continue desirable strains by selecting those of the proper type and yielding capacity. The practice of purchasing seeds from promiscuous retailers often proves a risky business. One need be no specialist to note that many irregular types, and low quality, poor yielding strains are to be found throughout the cabbage districts. This difficulty can be remedied only by purchasing from reliable seed houses, or by the growing of seed from carefully selected, home grown stock.

Prof. L. R. Jones of Wisconsin has found that various commercial fertilizers, as well as soil disinfectants, are wholly useless as preventive agents for the control of this disease in infected soil. For several seasons he has turned his attention chiefly toward the breeding of resistant strains and reports most substantial progress in this direction. In fields planted with commercial varieties in 1910, where the disease caused almost an entire loss, the few naturally resistant heads were selected and seed raised therefrom in 1911. While commercial seed planted on infected fields gave in 1912 only 21 per cent of living plants, the cabbage grown from the "resistant" seed developed 86 per cent live plants, over half of which formed heads. Seed produced from the best head gave 93 per cent of properly matured heads. These results show the influence of careful selection and indicate clearly the great possibilities that lie in the use of home grown seed of disease resistant strains.

Make-Up of Thoroughbred.
Many things enter into the make-up of a thoroughbred horse—the feet and legs must be right, the legs straight and well set under the body. The head should be well poised and the expression of the face good. The shoulders, ribs and thighs symmetrical, and the whole animal covered with good coat of hair.

Ways of Cut Worms.
Why do the cut worms confine their attention to vegetables and pass up the "pulsely" and red root?

RAISING BROILERS ON FARM

Exceedingly Large Demand for Lightweight Chickens of From Two to Two-and-Half Pounds.

(By A. C. SMITH, Professor of Poultry Husbandry, University Farm, St. Paul, Minn.)

The early chick is the most profitable, yet there is profit on the late chick provided it is not too late.

There is an exceptionally large demand for lightweight broilers and broilers of from two to two and a half pounds. This furnishes a splendid opportunity for those who wish to rear and market chicks without being obliged to house them. Hatched in May or June, they should easily weigh two or two and one-half pounds before October 1. If especially well fed, they should reach that weight still earlier. This is the most favorable time to hatch and raise chickens, as the parent stock has been out of doors long enough to acquire splendid health and remarkable vigor. Eggs, if sensibly set, should hatch almost perfectly and the chicks should live and thrive.

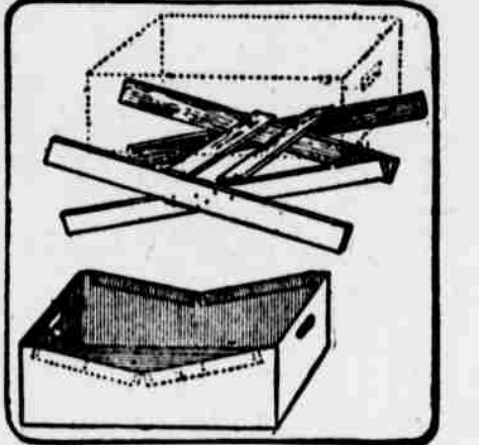
The equipment required is very small—a good-sized box or a barrel, covered with waterproof paper, set in a dry sheltered place may be used both to set the hen in and to house the brood, though the barrel is rather unsuitable for the brood after the chicks are weaned, especially if there are many of them.

Both hen and chicks should be allowed free range after the chicks are a few days old, to pick up a large share of their living, but in addition it is a good plan to feed them at night, and to give them all they will eat, as they will grow faster and will either be marketable at an earlier age or weigh more, and consequently bring more, at a given time. Chickens of this weight will not, it is true, bring a fortune, but it must be remembered that they cost very little to rear. The fact that the earlier they are marketable, the better the price, should not be lost sight of. For this reason it pays to feed them a little where there is not an opportunity to pick up abundance of food.

SUPER-REST IS CONVENIENT

Found to Be of Great Assistance in Examination of Hives—It Saves Crushing of Bees.

I am sending a drawing of a simple article which I find very convenient. I call it a super-rest, writes Elmer E. Waite of Mystic, Conn., in the *Gleanings in Bee Culture*. The upper drawing shows a sawhorse arrangement which is easily made by any one. The lower drawing shows a box which is about as simple to make, and will



A Super-Rest.

hold smoker, tools, etc. The upper one shows a super in place. The two ends of the holder should be about sixteen inches apart. I find this a great help when examining hives, as I can place this near the hive, usually in front, and set the super or super on it. It saves crushing bees, and your super will not fall over as they do when set on end.

MAKE HAY OF SWEET CLOVER

If Plant is Cut in Season It is Relished by Young Mules and Horses—Likes Any Soil.

A weed has been defined as a plant out of place. In a country where sweet clover grows so abundantly it should be made use of for some purpose rather than to make the roadside, the fence rows and ditch banks so unsightly. If cut in a season it can be made into hay which is far better than a snow bank for all kinds of stock, and for young horses and mules it is relished. Sheep and cattle will eat hay made from it and rather enjoy the variety in the ration which it supplies.

Sweet clover is a very cosmopolitan plant, adapting itself to all kinds of soil and conditions. It is a great nitrogen gatherer, growing on poor soil, providing there is enough lime in the soil to meet its needs. Try making the sweet clover into hay this coming season, and see if it cannot thus be turned into some account.

Obtain Early Tomato Plants.
Although much is done every year to obtain early tomato plants, yet some of the best yields in the main crop are from vines from seed sown. They do not bear quite as early, but the fruit is good and the vines strong.

Beware of Loose Wire.
Don't have any loose wire laying around the farm anywhere, especially where colts or horses run. It only takes two seconds to knock a hundred dollars off the value of the horse.

Plants for Home Yard.
The native wild highbush cranberry, dogwood, Juneberry, black haw and wild grape all make good plants for the home yard if properly set.