

A f f i d a v i t ,

I,

Essen,
20 March 1948

Georg Grassmann,
born on 22 Nov 1875 in Mittenwalde, (Silesia)
residing at Heidehang 38, Essen - Stadtwald,

have been warned that I shall be liable to punishment if I submit a false affidavit. I hereby declare that my statements are true and that they were made in order to be submitted as evidence to the United States Military Tribunal No. III in the Palace of Justice, Nuremberg, Germany.

I was with the Krupp Firm from 1910 until 1945 - in the Department of Artillery Development (AK) from 1910 until 1914 and again from 1933 until 1945, first as Department Chief and later as Group Chief. Prior to the first World War I was at the special disposal of Professor Rausenberger, Director at the time of artillery matters, and in this position I obtained a good insight into the relations of the Firm with the German ordnance agencies, especially the Artillery Testing Commission (Artillery-Pruefungs-Kommission). The further development of these relations during the first World War, in which I participated at the front, are known to me partly from Professor Rausenberger's letters and oral disclosures and partly from numerous discussions with my friends, who had experienced these relations and who again and again told me about them. Furthermore, I studied the literature on this subject. After I resumed my service in the Department of Artillery Development (1933) I participated regularly in the mail conferences and to a great extent in the other discussions; furthermore, I regularly read a large amount of the incoming and outgoing mail, and I regularly conferred with my colleagues on some of the matters which came up.

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In this way I became well acquainted with the relations between the Krupp Firm and the German ordnance agencies. As a check on my memory I have also taken the precaution to contact in reference to this subject, various individuals who had had authority in the former Department of Artillery Development.

Below I give a resume of the information in my possession:

- 1.) A survey of the first decades of Krupp's ordnance production shows that Krupp did not achieve his initial successes in Germany through any good relations of his with the authorities, but on the contrary in a struggle with the authorities.
- 2.) The succeeding decades brought a series of continuous successes for Krupp. These, however, laid the foundation for a certain inflexibility and stubbornness on the part of the principal officials of the Firm - traits which were looked upon by the representatives of the government agencies as an attitude of arrogance and an inclination to initiate disputes and to patronize. However, when at the turn of the century a certain particular case (the introduction of the barrel recoil) showed this attitude of the firm to be false, the ordnance authorities of the German Army warmly welcomed the appearance of competition, and they promoted it with all their means, as a balancing factor.

The hostility toward Krupp was and remained particularly great in the Field Artillery

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Departments of the Prussian Ministry of War, in the Artillery Testing Commission, and later in the Departments which superseded them, the Departments for Light Artillery at the I.W. G. (Weapons and Gun Equipment Inspectorate) and the Army Ordnance Office. It was because of this hostility that ever since 1873 - or for 75 years - with the exception of the F.K. 18 (light field gun 18) of which a few pieces (120) were put into service, not a single light field gun of Krupp design was introduced in the German Army. (F.K. (Field Gun) 96; Koenigliches Artillerie-Konstruktionsbureau Spandau: F.K. 96/n./ A.: the same, using construction principles from Krupp and Rheinmetall; F.K. 16; Rheinmetall). in the Foot Artillery Department of the Prussian Ministry of War and in the Artillery Testing Commission (heavy artillery) on the other hand, one still depended on Krupp, because at the beginning no competitive firm existed. For this reason there was good co-operation on both sides regarding the heavy Army guns up to and in the First World War, although hostility toward Krupp existed even then within the government agencies.

- 3.) Clear evidence for the tension that prevailed during the First World War and immediately thereafter between the top ordnance authorities and the Krupp Firm is provided by the fact that in the composition of the semi-official historical accounts that appeared after the First World War, entitled, "The Light Artillery Piece," and "The Heavy Artillery Piece," no use was made of the Krupp Firm, but intensive use, on the other hand, was made of the records of the Firm of Rheinmetall. In the book entitled, "The Light Artillery Piece", which appeared in 1925, the author, Lieutenant General (retired) Muther,

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Chief of the Field Artillery Department etc., of the Prussian War Ministry during the war, makes express mention in the introduction of the fact that he had used only official records and the records of the Firm of Rheinmetall. The author of the second book, which appeared in 1937, Lieutenant General (retired) Schirmer, who was a Department Chief in the Artillery Testing Commission during the war, is not so outspoken in his introduction, even though he does make prominent mention of the Firm of Rheinmetall. As a matter of fact, only when the text was ready for printing he approached a representative of the Krupp Firm, with whom he was acquainted not even the Firm itself with the request that this individual furnish him with some illustrations from Krupp to include in the illustrative material. He refused the request which the Firm sent to him asking for permission to see the text prior to printing. An experienced person may observe from the texts of both books the prominence given to the Firm of Rheinmetall and the slighting of the Krupp Firm. In view of the former eminent position of the authors this treatment may be taken as an indication of the attitude which must have prevailed in their day and in their circle.

4.) The executive regulations of the Treaty of Versailles excluded Krupp from certain fields of armament production. At the same time the German authorities - and on the whole this was their right and duty - continued their efforts to provide severe competition for Krupp in the fields of heavy and very heavy artillery, where the Firm hitherto had been the leader. However, fair methods were not always used in this connection, and the Krupp was considerably annoyed in consequence. After the establishment

of the Reichswerke Hermann Goering, which had been founded and financed by the Reich, there was naturally an intensification of the efforts by the Reich procurement agencies to allocate the contracts to the Reichswerke and to withhold them from Krupp, a private firm.

From the end of the first until the end of the second World War the relations of the Krupp Firm to the separate agencies of the Ordnance Offices etc. did not always remain the same, for in this long period of time the personnel of these agencies changed a number of times and the problems under consideration also varied a number of times, or oftentimes. In general, however, looking back one can say that, apart from exceptions, the Firm had normal relations for the most part with the Heavy Artillery departments, but that the relations with the Light Artillery, for which Krupp served only as a temporary resort, were frequently very strained.

- 5.) Many persons of the Ordnance Offices showed very little understanding of the meaning of "intellectual property". It was, rather, the experience of Krupp time and time again that the "Referents" carried off to our competitors, especially to Rheinmetall, the information obtained from Krupp. In one particularly crude case, as was accidentally found out, an official of the Army Ordnance Office, immediately after a discussion held at the Krupp Firm, called up the Firm of Rheinmetall from there, explained a Krupp design which had proved to be particularly successful, and advised Rheinmetall also to put this particular stroke of genius into service and without delay. (1936. Barrel construction in sections, for 8.8 cm Flak).
- 6.) As a consequence Krupp withheld explanations and instructions from the "Referents", an action which the military authorities construed as intellectual arrogance,

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withholding of intellectual property, refusal to co-operate and failure to participate in the national rearmament effort.

- 7.) The German Wehrmacht introduced the policy, after the first World War and after the dissolution of the Academy of Military Technology, of having officers study to become certificated engineers at the technical colleges, for the purpose of them using them in the Ordnance Offices. Some of these officers naturally had very little practical engineering experience. Consequently their proposals and suggestions were not always feasible, and their opinions were not always based on practical knowledge. This was also a source of many a tense situation. After the beginning of rearmament the Ordnance Offices greatly increased their personnel, partly by these officers who had been trained as certificated engineers, and partly by engineers from civil life, who came from other fields and had no experience with the interrelationship in artillery constructions. This was a further source of friction.

- 8.) Although the Offices (Aemter) such as the former Artillery Testing Commission were really intended merely to test the developments submitted to them, the personnel of these Offices who had engineering training tried to intervene more and more in the development work of the firms and to have their own development ideas used. And in many cases they were successful in this.

- 9.) From 1926 on the technical agencies of the Army and the Navy furnished the firms with special standards for the design and production of separate parts, and demanded the firms adherence thereto. The old standards of the firms had to be discontinued. So in this case the Offices took over the initiative.

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- 10.) The Ordnance Office, in connection with their increase of personnel, tried to recruit engineers from the armament firms, for their own use. Krupp, to his own disadvantage, made no use in general of the opportunity to install his people in the government agencies and thus acquire influence there; personnel of other firms, however, obtained important positions in the Ordnance Offices.
- 11.) On the other hand, Krupp never made promises that influential officials from the Ordnance Offices could later obtain positions in his Firm. In contrast, leading officials of the Ordnance Offices in a number of cases took employment, after leaving military service, with our competitor firms, like Bochumer Verein and Rheinmetall, so that these firms then had advantageous connections with the government agencies.
- 12.) Another deterioration of the relations with various departments of the Ordnance Offices, which had already been strained previously to this, was brought about in the ^{years} prior to 1930 through the very harsh personality of Dr. Ritter, who was the head of the Department of Artillery Development at the time. When in fulfillment of his duty he had to refuse the requests of the Ordnance Offices for production by invoking the Treaty of Versailles, he employed such a harsh manner that the Offices took offense.
- 13.) In the first world war the development costs were still included in the costs of the product. From 1926 on, however, the Ordnance Offices paid the actual costs that were incurred, on the basis of designer-months. They also determined the number of designers whom the firms were allowed to keep. Thus, in 1927 a development department for heavy naval turrets that had been set up a short while before with considerable effort, had to be discontinued because the government agencies could no longer pay so many designers.

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The fact that the development activities as a whole were not very intensive is indicated by the circumstance, for example, that for the development of a new 21 cm mortar that had been contracted for in December 1928 and for which a total of 200 designer-months had been allocated, only 50 designer-months had been used by the middle of 1933, or after 54 months had elapsed. In fact, not even one designer worked steadily on this large job. It frequently occurred that, when more urgent orders came in, unfinished previous orders had to be deferred by request of the government agencies, so that there was a serious loss of time when work on them was resumed later on. Moreover, in a number of cases Krupp was requested to dismiss designers, because the funds had been reduced. In general Krupp did not comply with such requests, but retained his workers. These were then used on non-military orders, naturally, since the Ordnance Offices did not pay them.

- 14.) By order of the Army Ordnance Office large quantities of drawings and other material were delivered by the development firms to the so-called Nachbaufirmen (firms manufacturing under license) in the rearmament period and during the last war, because it was desired that the armament production should be divided among as many firms as possible. Needless to say, this was done without objection, except where special experiences were released which had been gained through years of work, although even such cases were settled fairly. However, Krupp found it very annoying when, at the end of 1920's they were required to surrender data for the production of spare parts and for repairs to the yards, data which were then given to Rheinmetall via the yards, so that in addition to the latter

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this Firm also obtained a manufacturing advantage.

15.) The government agencies frequently complained, and not always unjustly, over the slowness with which the Krupp Firm answered their inquiries and handled their orders. This slowness was due to the thoroughness traditional with the Firm, on the one hand, and to the size of its organization and its extreme degree of subdivision into special departments, on the other. Another important factor was that even during the last war Krupp did not suspend the production of non-military equipment, so that the orders for war equipment had to be interspersed with the former and sometimes were at a disadvantage on this account. Furthermore, the chief of the Department of Artillery Development had no authority over the production departments, for these were under other *Bezernaten* (executive secretariats). Another reason for the slow handling of artillery development orders was oftentimes the inadequate number of designers for a particular field. Since Krupp had to distribute his people, of whom he otherwise had a great number, over too many fields, he had only about half as many designers for armored vehicles, for example, as either Laimler-Benz or MAN could draw on. The delays that resulted through such circumstances caused many unpleasant scenes and discords.

16.) The *Wehrmacht* authorities were very resentful toward the Krupp Firm for making frequent difficulties in the rearmament period in connection with the expansion of its workshops for armament purposes. Further, a particular source of constant grievance for the military agencies during the last war was the lack of an experimental workshop at the Krupp Firm, and the consequent slowness in carrying out experiments. Such workshops had proven particularly useful in several of the plants that

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had specialized in certain fields of armament, such as armored vehicle manufacture. Equipped with a good machine section, staffed with picked workers, and lead by an energetic department chief they were adaptable, they could readily make conversions, and they could easily put an experimental piece in shape in a very short period of time. At the Krupp Firm the plant managers had refused to set up such an experimental workshop, because in view of the extreme diversity of production it would have had to be very large and would have required a great number of valuable special machines, which would have had to be taken from general production. The military agencies concerned regarded this refusal as a lack of progressiveness and ill will, and they responded by turning to other firms.

Another reason for the differences between the Ordnance Office and the Krupp Firm was the protracted delivery dates which Krupp always gave when inquiries were made. The reason for specifying such dates was the honesty of the Firm, which would not mention imaginary terms, but only gave production dates as indicated on the basis of facts and years of experience, whereas a number of other firms promised short delivery periods which they ^{were} subsequently unable to keep. On the other hand, it was generally admitted that the delivery dates promised were unfailingly kept and that the goods delivered were always of outstanding quality.

17.) In contrast to many smaller firms Krupp was not merely a supplier ^{for} one procurement agency of the Wehrmacht, but for a whole series of agencies, such as :

WaJRUE, WuG2/VI (light guns), WuG 2VII (heavy guns), WuG 5/VIII (Panzer Program), WuG 2/IX (vehicles), and also for the Luftwaffe (Air Forces) and for the High Command of the Navy.

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Since it was quite impossible for Krupp to fully meet the high demands of the various procurement offices, most of these actually had misgivings that Krupp was not co-operating whole-heartedly, or that Krupp preferred other procurement offices and was neglecting those offices. The officers at the ordnance branch offices were especially offended before the war by the fact that Krupp was also manufacturing guns for foreign delivery. They felt this was unpatriotic and feared, moreover, that this meant that deliveries for them were being held back.

- 18.) Regulations determined by the Versailles Treaty permitted Krupp only to manufacture guns of over 17 cm calibre. Therefore the Inspectorate for Arms and Equipment (IAG), which during the twenties simultaneously gave orders for designs of light army guns - on principle for competitive reasons - to two firms, namely, Krupp and Rheinmetall, now transferred the manufacture of the experimental Krupp guns based upon these designs, to the Rheinmetall firm. Hence Krupp was forced to hand over promptly its drawings to the Rheinmetall firm which thus received constant knowledge of the Krupp designs and ideal in most intimate detail, and was thus in a position to improve its own competitive proposals or at least to improve on the next following.

The responsible man of IAG finally saw the incongruity of this situation, and attempted to persuade Krupp to manufacture its own experimental guns in order to obtain two really independent competitive tenders; Dr. Ritter who was then director of Artillery Development, firmly rejected this proposal, however, referring to the Versailles Treaty, and particularly in compliance with a prohibition

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expressly laid down by the head of the firm, Herr Gustav Krupp von Bohlen und Halbach,

- 19.) Since Rheinmetall, as explained above, had to manufacture the experimental guns for Krupp, representatives of Rheinmetall were regularly called upon to attend the firing and mobile tests with those Krupp guns, with the result that this (Rheinmetall) firm had continuous and current information of the performance of the guns made by the competition. Contrarily, the Krupp representatives were not admitted at all, or at most on a very modest scale, to the Rheinmetall gun experiments.
- 20.) Indeed, Krupp co-operated satisfactorily throughout at the Naval Ordnance Branch with its highest executive of many years service and with the Referent for heavy naval artillery; many of those experts for light naval artillery, however, were opposed to Krupp. Thus it happened that the Krupp firm received far less favorable design data as compared to Rheinmetall through analogous orders, without which data a useful solution could hardly be achieved. (5 cm tripod-deck flak of 1942/43). It was difficult for Krupp, in connection with an order received during the war, to obtain any design data at all. When, later, a model of a turret was finished, it was even more difficult to persuade the responsible Referent for light naval artillery to inspect the turret (1941/42 10.5 cm Double-flak turret). Apart from the foregoing, Krupp was often called upon ^{by} the Navy during the last world war to carry out protected special developments and single piece manufacture, whereas other firms were assigned the simpler, but more profitable serial manufactures.
- 21.) At Krupp one constantly had the impression during the

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thirties, with respect to the Army Ordnance Branch, that the latter was co-operating more closely with other firms than with Krupp. The Branch offices seemed to have been filled with distrust towards Krupp, because there were a number of men in high executive positions of the firm who were foreign born and only later acquired German citizenship. As one officer of the Army Ordnance Branch verbally informed a gentleman of the firm at that time, in one case participation of Krupp representatives in an experiment of the Ordnance Branch was rejected because they were members of a department of the plant which had formerly been managed by a foreigner. Both Krupp men scheduled to participate had, in addition, names which sounded foreign (Tofaute and Fry), which strengthened the distrust. (About 1935, distrust of the experimental station in regard to the testing of refractory materials). At Krupp one also had the impression ^{that} the gentleman of the Branch office were over-cautious in their conversations.

The fact is ^{that} the offices of the Offices of the Ordnance Branch were instructed by a special directive to restrict themselves to the most essential points of the business in hand in discussions with Krupp personnel, and to refrain from revealing plans and new ideas, a directive which likewise contributed to the creation of animosity against the Krupp firm in many offices of the Army Ordnance Branch.

To this same distrust may be attributed the fact that the Army Ordnance Branch requested information in a particular case of Artillery Development as to why Artillery Development had not learned of an experiment which the Army Ordnance Branch had transferred to another office of the firm. (About 1937: Manufacture of 3,7 cm hard-core (Hartkorn-) shells in Wida).

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It is also a fact that important experiments which could best have been carried out at the Krupp firm with its rich experience, were kept secret from Krupp and were assigned to other, less suitable firms (o.g., guide rings of sinter iron). In numerous other instances, the Army Ordnance Branch kept new arms developments secret from Krupp, which it conducted with other firms.

- 22.) The highest authorities of L-Flak, the Ordnance Branch of the Air Force, were strongly inimical to Krupp. Placing the Krupp firm at a disadvantage went so far, that in the case of one order which went to Krupp and Rheinmetall for competitive reasons, the Krupp firm received the design order a full year after Rheinmetall. (15 cm flak piece). In another case, in which the two firms received identical design orders, both firms were given orders for one experimental battery each after demonstration of the experimental guns. When the batteries were finished, the Krupp design was rejected on the basis of the allegedly excessive trajectory of the gun (which of course was no different from the experimental gun), whereas at the same time the conditions were dropped in the case of Rheinmetall in so far as they had not been filled by this (Rheinmetall) firm. In this manner Rheinmetall emerged as the victor in the competition. (10.5 cm flak 38).

- 23.) When in 1936 Dr. Erich Mueller from the Reich Railway Service was placed in charge of Artillery Development, there was much estrangement in the circles of the Ordnance Branch offices; the appointment of a "technician" had been expected, and it had been anticipated that some one from their own ranks

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would receive the post. The estrangement grew when Dr. Mueller bestowed a lot of attention particularly upon the promotion of foreign business. The Ordnance Branch offices consequently felt that they were being neglected.

Essen, 20 March 1948.

(signed:) Georg Grassmann.

Sworn to and signed before me by Herr Georg Grassmann, known to me to be the person making the above affidavit.

Essen, 20 March 1948.

(signed:) H. Link

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Attorney-at-Law.