

The Chee Hsin Cement Company, Limited.

Tientsin: Tangshan.

North China.



The Chee Isin Cement Co. Limited

Head Office: Corner Taku and Bristow Roads, Tientsin

Factories: Tangshan and Machiakou

Telegraphic Add. "Cement" Code Used: A. B. C. 5th Edition.

	Agents for	the	Company.	
Peking		•••	Ad. Birkhauser Siemssen & Co Shiper Change	\
Tsingtau			Siemssen & Co.	
Chinkiang Hankow			Ching Chong 人 并 计	图:
Nanking "			S. K. Chu 🦎 澱 🏗	الم الم
Newchwang Mukden			Arnhold Karberg & Co.	•
Dalny (Dairen)	,		*** *** *** \$	
Chefoo			China Merchants S.N.Co.	

司公限有灰泽新啟

烟大奉牛漢南青上鎮北唐天 招 局

THE CHEE HSIN CEMENT COMPANY, LIMITED, was founded in September 1906, (during 7th moon of 32nd year of Kuang Hsu), under the authorization of the Viceroy of Chihli, and duly registered in the Board of Agriculture, Industries and Commerce at Peking.

The works of the Company are situated at TANGSHAN, half way between Tientsin and Chinwangtao, on the Imperial Railways of North China. At this place the conditions for manufacturing Portland Cement are exceedingly favourable owing to the existance of all necessary rawmaterials, as Limestone, Clay and Coal. These materials exist in huge deposits. The Company has secured large areas in order to have sufficient rawmaterials for any number of years to come though the best quality only is being used.

The Plant of the Company is equipped with the most up to date machinery. It represents not only the largest but also the finest Cement-Factory on China territory and compares well with any Cement Plant in the World with regard to its modern type and method of working. The Steamengines develop about 2000 HP and Electricity is being used for driving the Machinery. The latest improvement in the treatment of Rawmaterials — the socalled "Wet-grinding-process" — has been introduced and by large rotary Kilns of the newest design (150 feet long) the burning of the Clinker is effected.

The yearly output has been gradually increased to about 600,000 barrels at present. This enormous increase demonstrates best the growing success of the works and confidence in the product.

Our storage rooms are served by mumerous railway sidings. We are thus able to accept orders for full shiploads and effect them promptly.

The quality of Tangshan Portland Cement is kept at a high standard by a most careful and scientific control of the process of manufacturing by experienced Cement-Experts. It is guaranteed by scrupulous tests daily executed in our well equipped laboratory that our cement is always uniform in fineness, strength and soundness.

As an example of the excellent quality of our cement we beg to attach the following statement.



附細種量膠本有本成現尺充餘名備全最選極貸農北本 列率化配有公大公效在選業匹之機廠合擇多口工洋公 於拉學合外司批司誠全配已馬各器布宜最且岸商大司 後力係分洋洋及備不年優告力洋靈置之優距之部臣於 及器班最灰整有問造美旅全灰巧均地之煤間 開成無監有成船洋可出材燒廠廠工極勢原礦且奏批緒 者錠不製學色定灰知洋料煉機相作合故料亦緊明准三 察後俱依問達購大矣灰攪洋器比得法得永近靠立成十 数匀灰咸较法機有遠本京案 在入之以亦在器製取公奉註並年 六水垫電属中均造用司路冊蒙七 十磨窑力毫圆概洋不已線工 萬網係鼓無固新灰竭購水廠 桶名最勤避病式最吾有隆設 之曰新現譲首照優唐各交在 請水之又總屈此美山種通唐 由磨式将汽一麻最實土均山 五八月 以 料 从 兵 近 呈 十 加 二 最 築 也 天 庸 原 島 司 餘擴千着完 然潤料運 $\stackrel{>}{\sim}$

驗敲備時經極者棧 即試而考驗精均雨 知之化驗之美能旁 言聲學且洋之随附 之均,師有灰優時設 不無昕極師點承鐵 謬不夕寬化其交路 也達妥敞學所以岔 最慎之師以應道 優從化慎得買直 之事驗選此客接 目精室原效也京 的益亚料果 奉 化求英分者 路 驗精德數誠 飨 單故各酌因 遇



Test Statement

on Tangshan Cement, taken from the Tangshan Laboratory Test Books.

Results obtained from a sample composed of cement of every day in the last year mixed together and thus forming an average of the cement manufactured during the year 1910.

FINENESS

 $0.2\ \%$ residue left on a sieve of 900 meshes per sq. cm. $12.0\ \%$, , , , , , , , 5000 , , , , , ,

SETTING TIME.

Begin: after 4 hours 3 minutes.

End: after 8 hours

SOUNDNESS.

1) English specification:

le Chatelier method, after 6 hours in boiling water: 3 mm Ext. 2) German specification:

cake of cement paste examined after 28 days: very good.

TENSILE STRENGTH.

1) English Specification:

Neat cement per sq. inch of section, after 7 days : 575 lbs. Increas of tensile strength." . " . " . 28 " : 665 " or 16 %

2) German specification:

Neat cement, per sq. cm. of section, after 7 days : 61.7 kg.
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謹將西歷一千九百十年全年逐日所提之灰樣擔合作一

全年平均化驗所得各項分數開列於後,

附

五十羅眼九百羅眼

凝結時

八野三分之二百二十

蒸試

英國法六點鐘後張力三米勒家達

德國法灰錠浸水內二十八日後取驗最優

拉力英國法

净灰 ン二十八日後毎方寸とよ日後毎方寸

六百六十五磅五百七十五磅

自七日後至二十八日計增多九十磅或作百分之十六

拉力德國法

二十八日後每方生地密達七日後每方生地密達

净灰

七十克羅一六十一克羅七

七日後每方生地家達

十九克羅一

灰一沙三 二十八月後每方生地密達 二十七克羅七

三個月後每方生地密達 三十二克羅五

Chemical. Analysis.

Insoluble residue: .	•	•	•			•	•	. 0.4
Silica:			•	•	•	•	•	. 21.9
Aluminia:		•	•			•		. 6.9
Iron Oxide:			•					. 2.0
Lime:		•		•				. 64.8
Magnesia:	•							. 2.3
Sulphuric Acid Anhydr.	_					•		. 14
Alcalies etc.: .		•				•		. 0.3
· ·	•	•	•	-	•	•	•	. 0.0
								100.0

This statement shows that the cement is superior to both English and German specifications with regard to FINENESS, and SOUNDNESS and that the SETTING TIME is within the allowed limits. Also the STRENGTH is by far superior to the specifications, as the ENGLISH requests only 400 lbs. per sq. inch after 7 days, and 500 lbs. per sq. inch after 28 days; and further that the increase from 7 to 28 days for neat cement is not less than $10^{\circ}/_{\circ}$. — And the German specification requests only 16 kg. per sq. cm. after 28 days for sand and cement mixed together, 1: 3.

The chemical analysis also shows, that the composition is good, and that the contents of insoluble residue, magnesia and sulphuric acid anhydr, is under the allowed maximum.

The cement must therefore be regarded as a first class Portland Cement, which may be used for all kinds of work.

THE CHEE HSIN CEMENT Co., Ltd., (signed) H. SCHRODER,



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孩 海 至 ニナ 方 寸 須 >/ 日 S 應 百 磅二十 墙者 不 八限 触 不 日 後五百 及 百 分 2 磅 為 + ク 及 查德 格 由 例 X 日

十 /\ 日 孩 灰 _ 沙三 74 十 虍 羅 為 合 格 兹 本 4 司 灰

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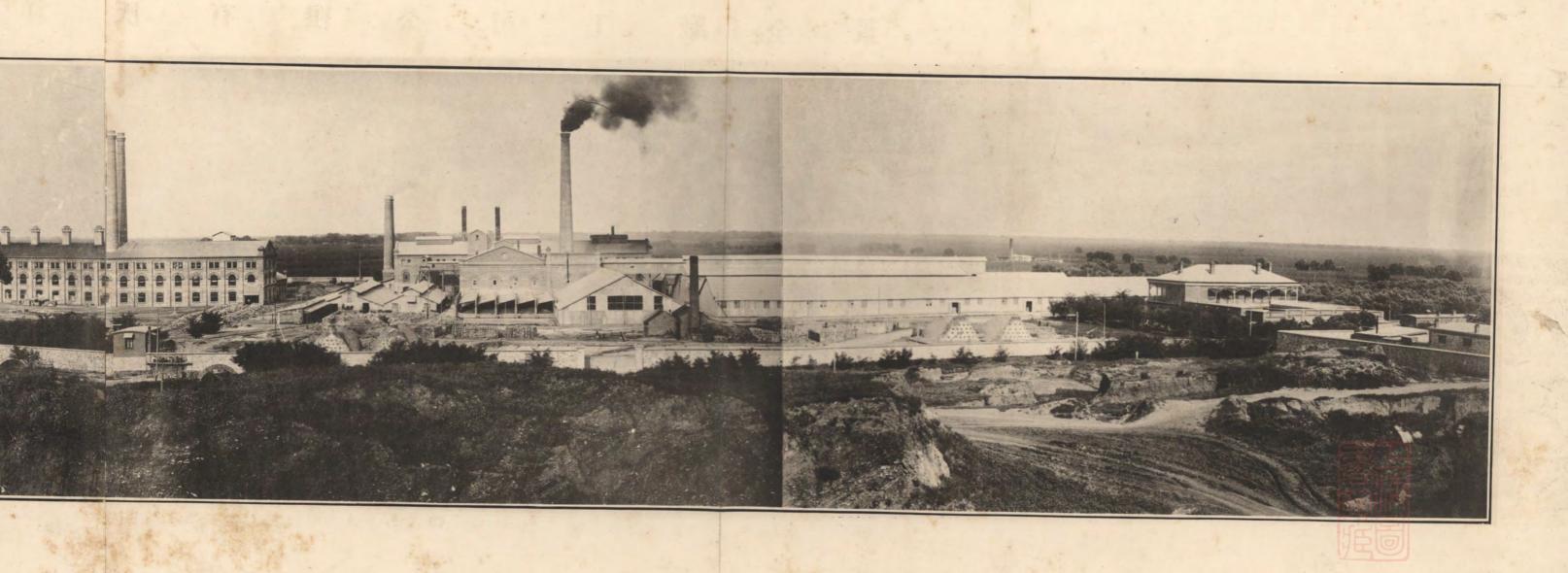
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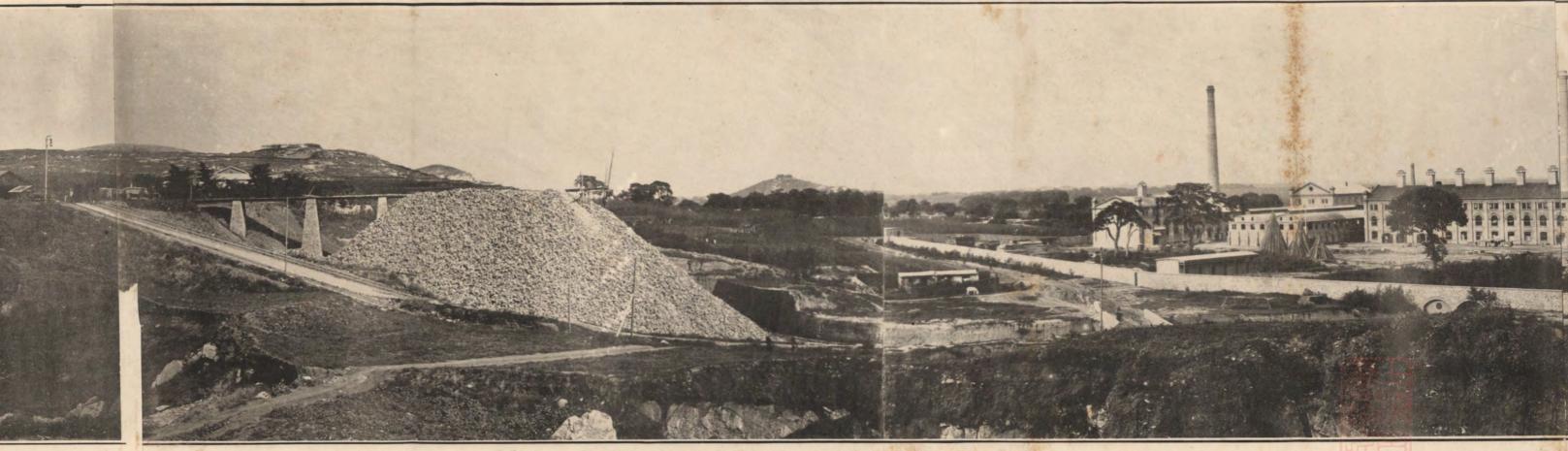
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歴一千九百一十一年三月三十 號



景全廠工司公限有灰洋新啓



FULL VIEW OF THE CHEE HSIN CEMENT WORKS, TANGSHAN.



TANGSHAN PORTLAND CEMENT is packed in Iron Drums of 375 lbs. net and in bags of 187½ lbs. net. The best packing materials only are used in order to prevent as far as possible any loss by leaking on the Transport.

Tangshan Portland Cement is extensively used in Railway,-Harbour,-Mining,-Bridge-and other Foundation Work all over China. The Peking-Hankow, the Tientsin-Pukow and the Peking-Kalgan Railway, for instance, have used Tangshan Cement with best results. The Cement is especially fit for ironconcrete work as proved at the construction of the Hoang-Ho-River Bridge of the Tientsin-Pukow Railway, where it is preferred even to European brands on account of superior quality.

In the following we beg to add a few testimonials showing the opinion of some prominent constructing engineers and authorities on the results of Tangshan Portland Cement in practice:



工现合川壩水损八洋 程在法溪各公失十灰 质全津等工司也七分 歷購浦路程泽 磅裝 经本路凡所灰 半桶 使公青橋信為 桶包 用司用梁用中 包雨 洋洋本各如國 材種 灰灰公要津各 料桶 證不司工浦省 均灰 書欲泽均京官 選净 以再灰經奉辨 精重 供用打施京商 美三百 **农泽黄用張辨** 覧製河無張鐵 义七 也橋不绥路 结十 後椿合京暨 實者 附查宜漢各 各驗以汴礦 水包 鐵純造洛廠 陸灰 路美橋潼公 遠净 及無柱洛司 運重 海疵尤同亚 壩故為蒲海 虞百

Messrs. THE CHEE HSIN CEMENT Co., Ltd., TONGSHAN.

Dear Sirs,

This is to certify that the Cement you supplied us has been found excellent.

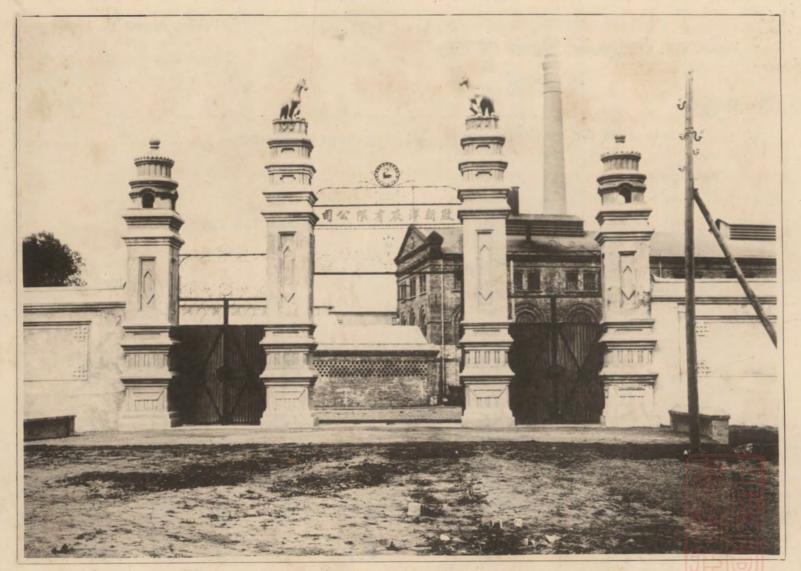
Yours truly,

(signed) Jeme Tien Yow.

Chief Engineer,

Imp. Peking-Kalgan Rly.

面正門大東廠總



FRONT GATE OF CEMENT FACTORY.

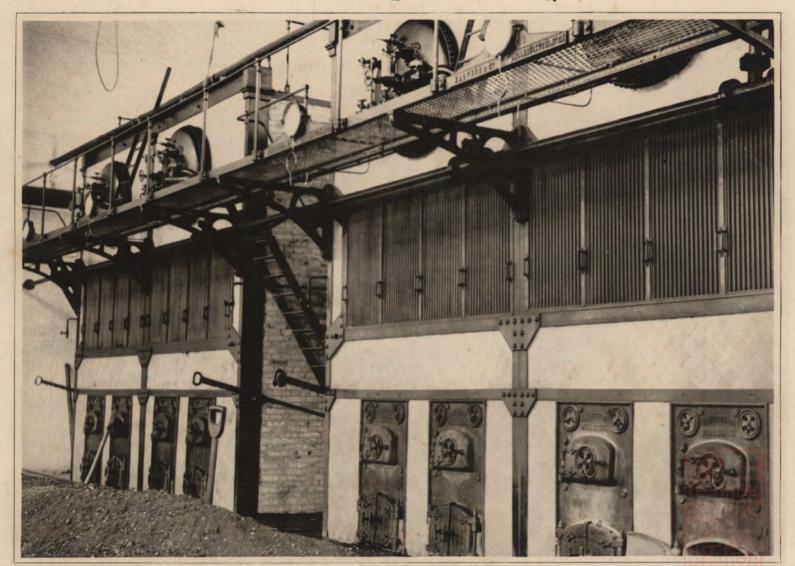
TRANSLATION.

Peking, 27th February 1909.

CERTIFICATE.

Taotai Tsein Tsing Lien, Director of the Peking-Hankow Railway, has much pleasure in confirming herewith that he has used about 8,000 barrels of Cement from the Chee Hsin Cement Company, Limited, Tientsin, both for foundation as well as for building purposes and that the Cement has given entire satisfaction.

(signed) T. L. Tsein.



BOILER ROOM.

Board of Posts and Communications

Chinese Imperial Railways.

DIRECTOR-GENERAL'S OFFICE.

Peking, May 24, 1910.

THE CHEE HSIN CEMENT Co., Ltd.,

TIENTSIN.

Dear Sirs:-

Replying to your request to know what satisfaction the cement of The Chee Hsin Cement Co., Ltd. is giving I would state that under my administration as Managing Director of the Tientsin-Pukow Ry., we ordered about 20,000 tons of your cement and we have found it very satisfactory.

I remain,

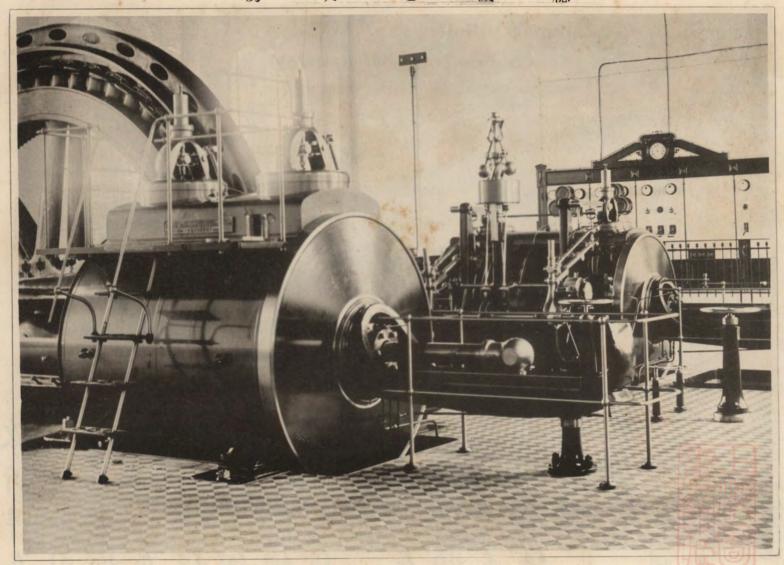
Yours sincerely,

(signed) Albert C. Lee,

Technical & Mechanical Advisor

For the Board of

Posts and Communications.



ENGINE ROOM.

Imperial Railways of North China.

Head office, Tientsin, 31st December 1910.

THE CHEE HSIN CEMENT Co., Ltd.

TIENTSIN.

Sirs,

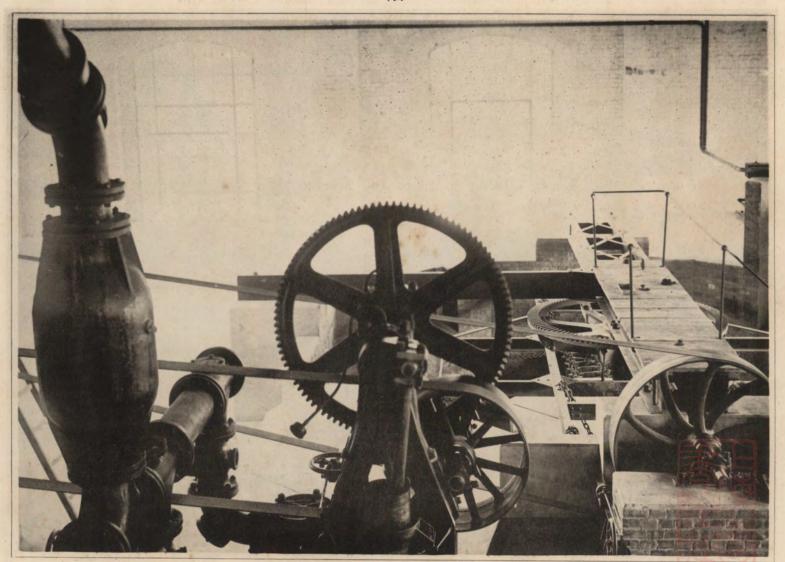
I am authorized by my Directors to inform you that you are appointed Purveyors of cement to the Imperial Railways of North China.

I am, Sirs,

Your obedient servant,

(signed) H. J. W. Marshall,

Secretary.



MILL ROOM "WET PROCESS".

KAISERLICH CHINESISCHE TIENTSIN-PUKOW EISENBAHN NORDSTRECKE

Tientsin, 24th May, 1911.

The Secretary,

THE CHEE HSIN CEMENT Co., Ltd., TIENTSIN.

Dear Sir.

In continuation of my letter of 29th December 1910 (J. No. 9825): please find hereunder a copy of a report from the Section Tsinanfu of this line with regard to the results of further test of your cement.

The report is addressed to me and reads as follows:-

"The compressive strength tests which have at my instigation been carried out by the Engineering Dept. I of the Imperial German Government in Tsingtau with Cubes of Tongshan Cement are now concluded.

I beg to report that the results of these tests show that the present supplies of Tongshan Cement fulfil in

every respect all the requirements of good cement.

Consequently, the Tongshan Cement can be used to the best advantage—mixed in the same proportions as foreign cement—for the construction of viaducts and other concrete structures that have to stand heavy strain.

Tsinanfu, 27 April, 1911. Kaiserlich Chinesische Tientsin-Pukow Eisenbahn, Nordstrecke.

Bauleitung Tsinanfu.

I.V.

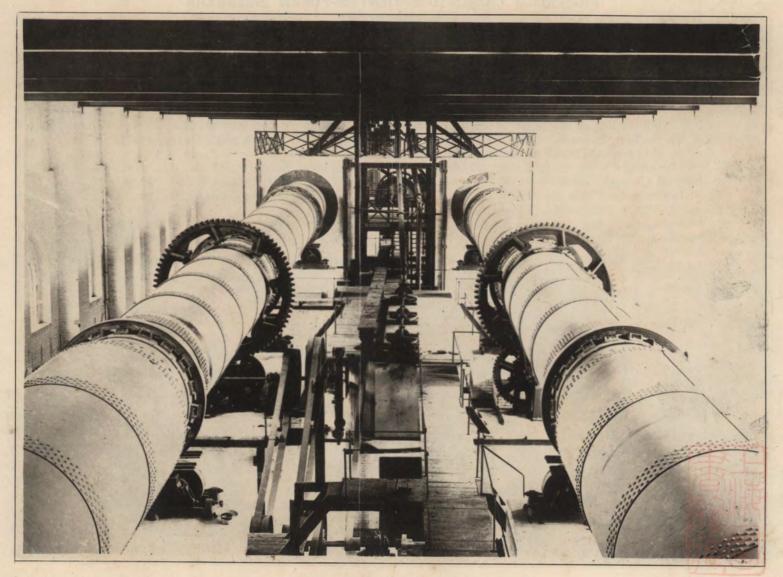
(signed) Lucht."

A German copy of the above was also sent to Dr. Gunther.

Yours faithfully.

(signed) Dorpmuller.

Engineer-in-Chief. 本路各處工程均



ROTARY KILNS.

TRANSLATION.

The Imperial Chinese Tientsin Pukow Railway, Northern Section.

Journal No 317.

Tsinanfu, 3rd January, 1911.

BAURAT DORPMULLER, ENGINEER-IN-CHIEF, TIENTSIN PUKOW RAILWAY, TIENTSIN.

Dear Sir,

In reply to your esteemed favour of 29.12.10, I beg to inform you that we have obtained the best results with the cement supplied by The Chee Hsin Cement Co. Ltd. of Tangshan.

The Piles made of this cement (Iron-Concrete-Piles) show an extraordinary stability and strength, so that we used chiefly Tangshan Cement for the Piles. The Piles, from 15 to 17 meters long, have to stand from 1500 to 3000 strockes of a $4^{1/2}$ tons pile-driver, which operation, I think, surpasses the severest tests.

After the experences made with the above cement, I can only highly recommend it. You are at liberty to make use of this judgement for any purpose you should wish.

Yours faithfully,

(signed) Borkowetz.



ROPE TRANSPORTATION.

(No. 120) ENGINEER'S OFFICE.

HULUTAO HARBOUR WORKS. LIENSHAN.

July 11th, 1911.

THE CHEE HSIN CEMENT Co., TIENTSIN.

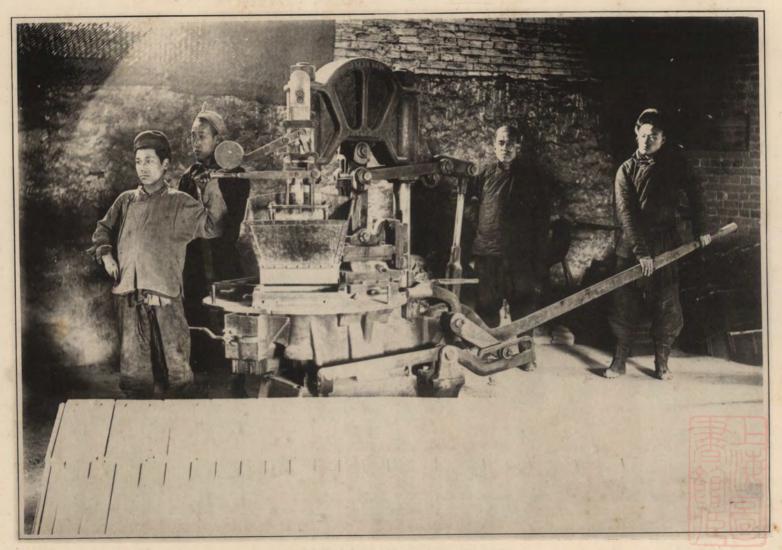
Dear Sirs,

Replying to yours of 23rd June, our requirements for the rest of this year (up to the end of October) will be about 18,000 bags.

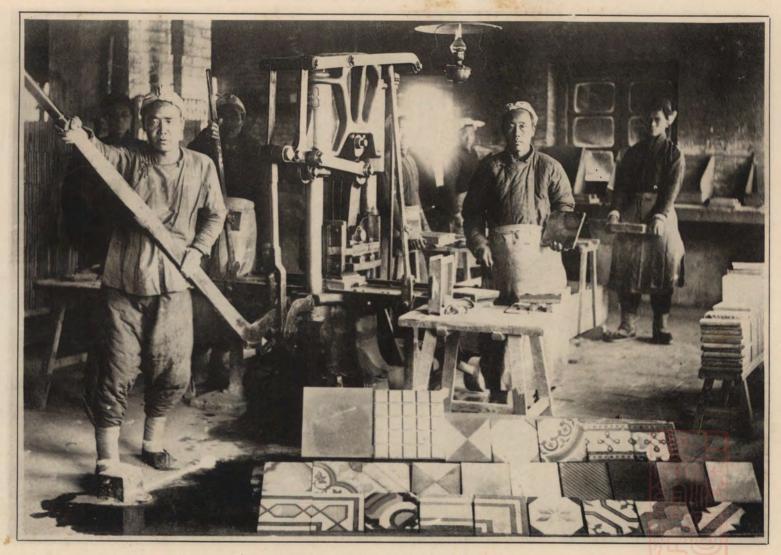
We have so far used 7,500 bags of the cement in making large concrete blocks in the sea, and culverts on the railway, also in building blocks for house construction. It has proved quite satisfactory in all cases.

Yours faithfully,

(signed) W. R. Hughes.

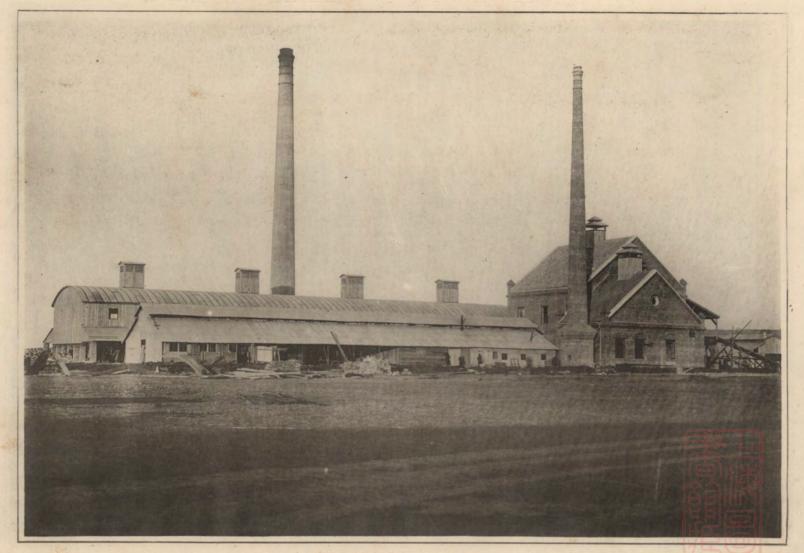


ROOFING TILES MANUFACTORY.



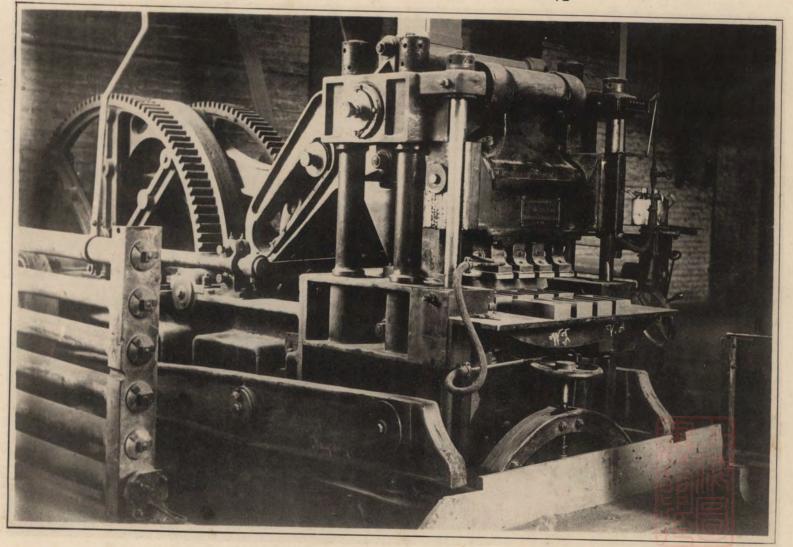
MOSAIC TILES MANUFACTORY.

窰 磚 式 西 及 房 汽 機 廠 分 北



BRICK FACTORY (Ma-chia-kou).

器機磚壓法乾



BRICK PRESSING MACHINE.

Besides the Works at Tangshan, there is an extensive Factory at Machiakou manufacturing high class Fireclay, Fireclay Brick and Clinker Tiles.

The following kinds of Firebricks are always in stock:-

No. 1002: These are hard burnt Clinker Bricks of good shape, useful for exceptionally strong Foundations

& for Paving sidewalks, Streets, Stables, etc.

No. 1003: These are handmade bricks for common building purposes.

No. 1004: These bricks are pressed by machinery, they are hard & well shaped & are first class Facing

(Red or Yellow) Bricks for Buildings.

No. 1031: These are good for walling in Boilers, lining Stoves & all other such purposes. Their melting point is not below Segercone 26 (1650° C).

No. 1032: These bricks are made with our best Fireclay and stand a melting point not lower than Segercone 29 (1710° C). They are good for all purposes where they are exposed to Fire and

on account of their white surface and good rectangular shape are at the same time

ornamental.

Special Bricks: By selecting the best fireclay and by mixing it with brick flour (Chamotte) we are able to manufacture in Tangshan a firebrick with somewhat better refractory properties than our ordinary firebrick No. 1032. The melting point of these special bricks lies not lower than Seger cone 32 (or about 1790 Celsius). These bricks are fit for blast furnaces, and, of course, for any other purposes, where they have to stand intense heat.

In regard to our special bricks it may be said that after many years experience, we are now able to turn them out in any dimension and shape, so as to fulfil all requirements.



本 公 司 兼 造 缸 磚 泔

熕 頻 Ż 磚 廠 年 按 坯 年 應 全 内 本 在 永 用 Æ 係 原 馬 公 减 式 銷 用 家 垬 司 場 쫔 宜 純 缸 溝 製 其 淨 亦 内 磚 擴 造 禁 極 焼 矸 拜 併 充 火。 推 域 子 計 ¥Ł 灰 **廣爰將** 力 分 土 毎 分 1 年 连 别 機 厰 外 至 砌 器 可 先 附 各 ___ 牆 磨 達 訤 属 種 千 劯 研 至 西 디다 红 鍋 式 极 八 YX 磚 百 爐 十 磚 細 红 度 大 窑 磚 耐力 再 萬 足 概 烟 用 製 為 摅 嫓 用 機 按 囱 造 大 等 法 外 咒 红 红 宗 泽 壓 臕 用 磚 磚 自 列 最 編 製 連 於 髙 號 極 名 唐 统 稂 堅 火 分 山 元

第 贍 筝 極第 -索耐 寒 宜 零 雰 久 四 ニ 號 號 者 者 分 用 紅 於 黄 通 常 種 建築 質 均 工 堅 程 约 及 整 ata 齊 牆 儿 壁 臨 旣 街 壯 觀

7

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第 髙 樓 百零 厦 亭 號 臺 者娱 上 為 目 的所 築在 鷂 用 爐八 門动 徑 建 筝 殊 属 用 壯 其 禁 觀 火 カ A

此十 第 **メーキー** 殿純百十零 平度三五三次正以十十十及 7 有 隨 買 種倘上二度 用凡號以 客 戢 受-二號 意 高作 者 既禁 莊火 係 圖 火飾 者 煉 用 製 品之 極 滕造缸洵 ユ 髙 磚稱程 其 矸 籌 禁 專 特 用 チ 備 火 11 土 力 造 耐力 砂 達 築 築 成 禁· 至 嚴 熔 為 煉 火 1 五 相 力 金 宜 在 質 育 且

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