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THE STORY OF
BETHLEHEM
STEEL

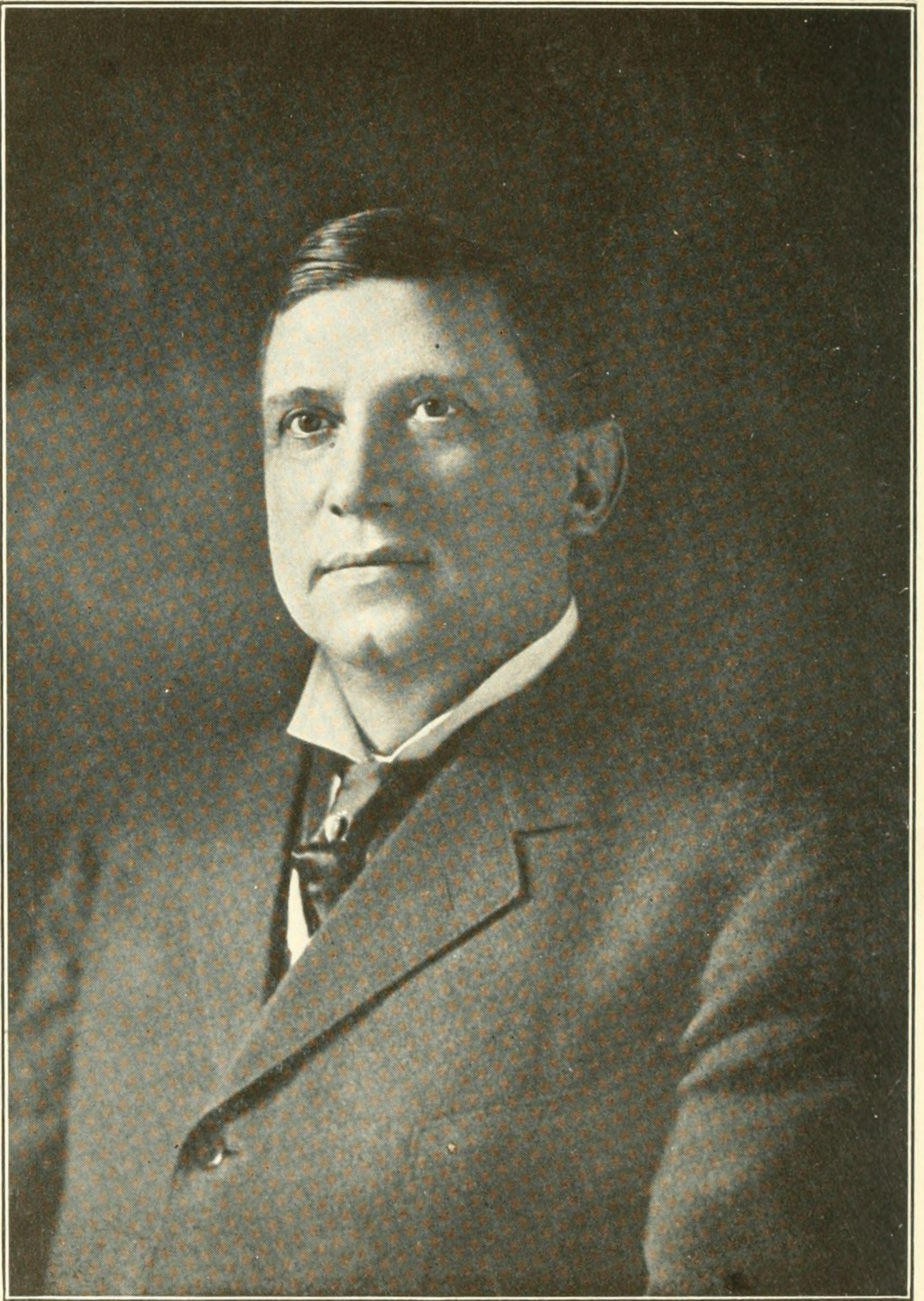


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CHARLES M. SCHWAB

✓
THE
STORY OF BETHLEHEM
STEEL

BY ARUNDEL COTTER ✓

Author of "The Authentic History of the United States Steel Corporation"

1916

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FOREWORD

A PREFACE is usually an apology or justification, and I do not intend to apologize for this work, believing that the wonderful success of Bethlehem Steel completely justifies the telling of its story.

On looking over the pages, however, it seemed that more might have been devoted to a study of Charles M. Schwab, the man. But in the final analysis it is plain that when one writes of Bethlehem he writes of Schwab, who made it.

ARUNDEL COTTER.

New York, November 1, 1916.

CHAPTER I

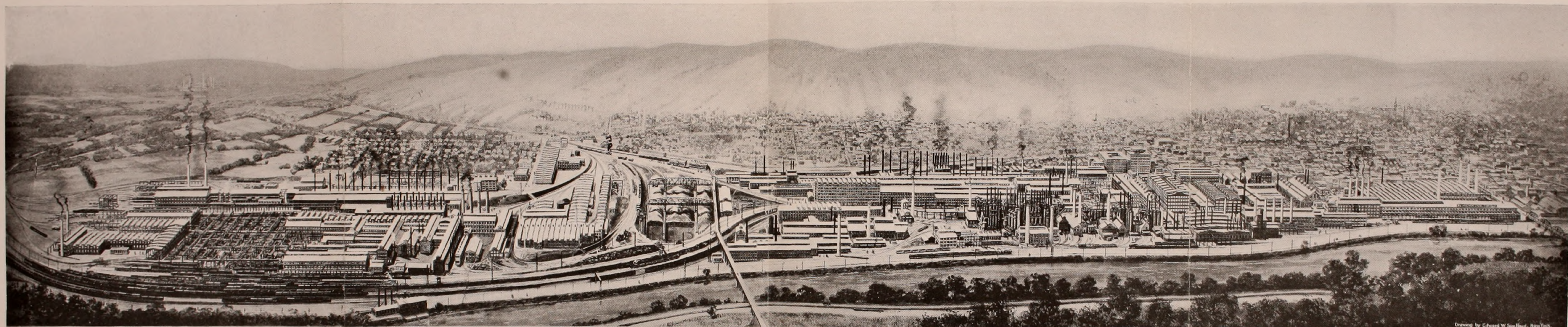
THE STORY OF BETHLEHEM STEEL

TOWN FOUNDED BY MORAVIAN COLONISTS--IT IS NAMED--IRON
DISCOVERED IN THE SAUCON VALLEY--EARLY HISTORY OF BETH-
LEHEM STEEL ORGANIZATION AND FAILURE OF UNITED STATES
SHIPBUILDING CO.--SCHWAB COMES TO BETHLEHEM

ON the twenty-fourth of December, 1741, late at night, a small body of men gathered in a rude log hut in a tiny clearing in the Lehigh Valley, on the banks of the Lehigh River. They met, far in the wilderness, to celebrate the Christian feast and their voices, raised in hymns, echoed throughout the virgin forest and were answered only by the howls of wild animals.

These men had fled from religious persecution in Europe. Seeking a spot where they might worship in peace they had selected the Lehigh Valley for their future home. And on this night they had met not only to celebrate Christmas Eve, but officially to found the settlement, for during the day had arrived from abroad the patron by whose aid they had escaped from persecution, the aged Count Zinzendorf.

At the approach of midnight the old count, who had been leading the pilgrims in prayer and exhortation, paused, and with the light of a great idea shining from his eyes, said:



BETHLEHEM STEEL COMPANY,
SOUTH BETHLEHEM, PA.

Drawing by Edward W. Spofford, New York.

“Brothers, how more fittingly could we call our new home than to name it in honor of the spot where the event we now commemorate took place. We will call this place Bethlehem.”

HOW BETHLEHEM WAS NAMED

And so was Bethlehem named after the birth-place of the Man of Peace. Bethlehem, to-day the home of the greatest war material plant in the world!

The colonists were a sturdy and hard-working race, and the new community prospered and grew in size and importance. It became the home of a new religious sect, known as the Moravians, a people peculiarly devoted to peace. For more than a century its inhabitants kept themselves apart. None save those of the faith might own property there or be buried within the town limits. But gradually this changed and a more liberal policy took its place, and Bethlehem was incorporated as a town about the middle of the nineteenth century.

In the early fifties, shortly before the Civil War, deposits of workable iron ore were discovered in the Saucon Valley, near Bethlehem, and local capitalists incorporated the Saucon Iron Co. to develop these ores on April 8, 1857. On March 31, 1859, the name was changed to the Bethlehem Rolling Mills and Iron Co., and again, on May 1, 1861, to the Bethlehem Iron Co.

Apparently the original organizers of the company were so busy selecting a suitable name for their enterprise that they had little time for anything else, for it was not until July 16, 1860, that ground was broken for the construction of a plant at South Bethlehem, just across the river from the original colony, and the site of the existing steel works. The disturbance caused by the Civil War further delayed construction, and it was not until Jan. 4, 1863, that the first blast furnace was put into operation. The puddle furnaces started later the same month and in the following September the rolling mill of South Bethlehem turned out its first batch of iron rails.

THE BEGINNING OF BETHLEHEM STEEL.

Bethlehem, says Casson, in his "Romance of Steel," was created out of the money of Joseph Wharton and the brains of John Fritz. Fritz, who died only a few years ago, was one of the pioneers of American steel-making, and he builded the Bethlehem plant soundly and well, as his successors will testify. In the early seventies Fritz saw the possibilities of the new Bessemer steel-making process, and it did not take him long to grasp the importance of the discovery of Kelly and Bessemer. He decided to make steel at Bethlehem. Immediately the construction of the necessary converters was begun and on October 4, 1873, the first heat of steel was

made at the plant. Two weeks later the first rolling of steel rails was completed.

Under Fritz's able management the plant grew and prospered, but it is safe to say that not even he ever dreamed how great it would one day become. The changes of the years may best be illustrated by the following balance sheets showing the assets and liabilities of the old Bethlehem Iron Co. as of July 1, 1862, and of the Bethlehem Steel Corporation as of December 31, 1915, the date of its last report.

COMPARATIVE BALANCE SHEETS.		
Bethlehem Iron Co. July 1, 1862.		Bethlehem Steel Corporation. December 31, 1915.
\$121,303	Property account	\$76,955,705
21,321	Current assets	66,663,721
	Deferred items, etc.	2,160,424
\$142,624	Total Assets	\$145,779,850
\$136,002	Capital Stock	\$29,770,000
6,622	Current liabilities	52,329,314
	Bonded debt	31,099,000
	Reserves	1,303,146
	Surplus (appropriated and unappropriated)	31,278,390
\$142,624	Total Liabilities	\$145,779,850

The company has grown to 1,000 times its original size, and more. Up to 1886 Bethlehem's output consisted principally of commercial products of iron and steel, but in that year, at the suggestion of W. C. Whitney, then Secretary of War, it was decided to go into the manufacture of armor plate for the United States

Government, a mill was built for that purpose, and for many years thereafter attention was devoted almost exclusively to the manufacture of offensive and defensive articles of war. In fact, it has only been within very recent years that any important attempt has been made to return to the regular steel products.

But while the Bethlehem plant was a well-equipped and well-managed armor-plate factory, and gave very satisfactory returns to its stockholders, it never attained prominence until recently. Its early history was the humdrum, the stodgy, rather than the spectacular. One thing changed all this and converted Bethlehem from a sleepy town to a wide-awake one, from a prosperous community to a rich one. This was the coming of Charles M. Schwab.

BETHLEHEM STEEL COMPANY ORGANIZED

In 1899 the Bethlehem Iron Co. had grown until it had a capital of \$7,500,000. In that year the Bethlehem Steel Co. was organized and obtained control of the iron company's properties on a 999 years' lease on a guaranty of 6% on the outstanding stock. The new company also took over the iron company's bonded indebtedness of \$1,351,000. Subsequently the stock of the Bethlehem Iron Co. was exchanged for bonds of the steel company, paying 6%, and the lease was

cancelled, the properties being transferred outright to the Bethlehem Steel Co.

Meantime the steel companies of the United States had been merging into greater and still greater units and, early in 1901, the greatest combine that the world has yet seen, the United States Steel Corporation, was formed. Schwab, former president of the Carnegie Steel Co., was made its president. No sooner had the new combine started to operate, however, than Schwab found his position an irksome one. He had expected to be in supreme command of the big company, and he found that he was not. Accustomed to absolute authority, Schwab chafed under the restraints of his position and on more than one occasion was on the point of resigning.

In the fall of 1901 the late E. H. Harriman conceived the idea of organizing a merger of the Bethlehem Steel Co. and two or three other companies, and asked Schwab to negotiate the deal. It was never consummated, but Schwab himself purchased the Bethlehem Steel Co., paying for the stock \$7,500,000. Shortly afterward, however, realizing that his position as president of one large steel company and owner of a competing concern was an ambiguous one, he asked the late J. P. Morgan to take the property off his hands at the price he had paid for it. This Morgan consented to. The banker later suggested

that the Steel Corporation should purchase the company, but opposition developed and the matter was dropped, Morgan remaining the nominal owner.

Shortly afterwards, or in the Spring of 1902, Lewis Nixon and others who were engaged in organizing a shipbuilding merger, came to Schwab with their plans, and he suggested that, to complete and round out their proposed company, they should obtain control of a steel company equipped for making ship plate. He called to their attention that it would be easy to get Bethlehem, and they decided to accept his advice.

So Schwab repurchased the property from Morgan and transferred it to the new concern, which was named the United States Shipbuilding Co. In exchange for the Bethlehem company he received \$10,000,000 of each class of stock of the shipbuilding company and \$10,000,000 of its bonds.

UNITED STATES SHIPBUILDING COMPANY

The United States Shipbuilding Co. was incorporated on June 17, 1902, eight concerns besides Bethlehem Steel being brought into it. It had a capital of \$20,000,000 of preferred stock, \$25,000,000 of common stock, and \$26,000,000 of bonds as well as the underlying indebtedness of the Bethlehem Steel Co.

The total stock capitalization of all the com-

panies merged into the shipbuilding company was \$19,800,000, so that it was obviously heavily loaded with water. Its organizers, in their prospectus, estimated that yearly earnings might be placed at well over \$5,000,000. Lewis Nixon became its first president.

A short life and a stormy one was the lot of the new venture. Hardly a year had passed before it got into financial difficulties, and on July 1, 1903, James Smith, Jr., was appointed receiver by the courts.

In the mean time, or about April, 1903, Schwab had resigned the presidency of the Steel Corporation, although he did not actually leave the office until somewhat later in the year.

Receiver Smith, in his report to the court, severely scored the organizers of the shipbuilding company. He said that earnings had been grossly overestimated and pointed out that the actual profits of the combine for the first year of its existence had been less than half of the promised amount, or \$2,495,590, of which sum Bethlehem Steel alone had earned \$1,662,531.

Mr. Smith also reported that the profits of the Bethlehem company did not necessarily benefit the company supposedly controlling it, as the directors of the steel company were at liberty to decide whether they should pay out such profits in dividends or turn them back into the treasury

of the Bethlehem company for new construction, etc., and he found that all of Bethlehem's profits had been so used, the shipbuilding company being forced to rely on the earnings of its weaker subsidiaries to meet its liabilities.

The receiver laid the responsibility for the failure of the combine largely at Schwab's door. He asserted that Schwab, as principal owner of the Shipbuilding stock, had great influence in the company, and he also found that, by the terms of the sale of the Bethlehem company, Schwab had practical dictation as to its directorate, so that, in refusing to pay dividends to the nominally controlling company they might have been supposed to be carrying out his orders. Schwab, he said, was virtually the man behind the throne in both companies, although he was not on the directorate of either.

On the other hand, Schwab denied, and still denies, any share of responsibility for the disastrous end of the United States Shipbuilding Co. His claim is that he was merely the largest creditor of that concern and took no active part in its management.

In justice to the present head of the Bethlehem Steel Corporation it should be stated that during the period of the shipbuilding company's existence he was almost constantly ill. A victim of neuritis, he spent a considerable portion of his time abroad seeking relief, and so, whatever his

powers regarding control of the company's affairs might have been, it is hardly likely that he exercised them to any extent.

BETHLEHEM STEEL CORPORATION ORGANIZED

For some time it looked as if the failure of the combine would lead to long-drawn-out litigation, but eventually a compromise was agreed upon and a new company was formed to take over the several concerns that had gone to make up the shipbuilding company. This concern, the existing Bethlehem Steel Corporation, was chartered under the laws of the State of New Jersey on December 10, 1904, with a capital of \$15,000,000 of common and the same amount of preferred stock, and \$3,000,000 of bonds, subject to the prior lien of the original Bethlehem bonds. The stock of the corporation was exchanged for the bonds of the Shipbuilding Co., the new bonds being offered to these same bondholders at 87½. The terms of exchange were as follows:

	Will pay	Will receive		
		New bonds	Pfd. stock	Com. stock
Holders of \$10,000 1st Mtge. U. S. Shipbuild- ing bonds			\$4,000	\$6,000
If subscribing at 87½	\$875	\$1,000		
Holders of \$10,000 Bethlehem collateral bonds			\$9,000	\$6,000
If subscribing at 87½	\$1,352.50	\$1,500		

The companies which went to make up the Bethlehem Steel Corporation were:

Bethlehem Steel Co. This company's steel plant at Bethlehem was equipped to make steel rails and other products, but its output consisted largely of armor plate and munitions. It had an annual steel capacity of approximately 300,000 tons of ingots. Its capitalization was \$15,000,000.

Harlan & Hollingsworth, \$1,000,000 capital. Owned and operated a shipbuilding plant and dry dock, as well as a car-building shop, at Wilmington, Del.

Union Iron Works. Capital \$2,000,000. Operated a shipbuilding plant and dry dock, machine shops and foundries, at San Francisco, Cal.

Samuel L. Moore & Sons, Corp. Capital \$300,000. Owned foundries and machine shops equipped for marine repair work at Elizabethport, N. J.

Carteret Improvement Co. Capital \$300,000. Owned unimproved real estate at Carteret, N. J.

Eastern Shipbuilding Co. Capital \$300,000. Operated a shipbuilding plant on leased property at Groton, Conn., opposite New London.

Crescent Shipyard. Capital \$300,000. Operated a shipbuilding plant at Elizabethport, complementary to that of the Samuel L. Moore Corporation.

Bath Iron Works. \$500,000 capital. Operated shipbuilding plant at Bath, Me.

Hyde Windlass Co. Capital \$100,000. Had a plant at Bath, Me., where it manufactured steam windlasses and other marine equipment.

The Bath Iron Works and the Hyde Windlass Co. were sold in 1905, Bethlehem receiving for them about \$350,000 in cash and \$475,000 in purchase money bonds. In the same year the Cartier and Crescent companies were consolidated with the Moore corporation and, in 1907, the Eastern Shipbuilding Co. was sold.

Charles M. Schwab, as already stated, had resigned from the presidency of the United States Steel Corporation early in 1903. His intention, or so he intimated, was to retire from business, ill health being his excuse, but after spending some time in Europe he returned home much improved, able and anxious to throw himself into the battle of industry again. So when the Bethlehem Steel Corporation was organized from the débris of the shipbuilding wreck it was natural that the former president of the Steel Corporation, who was also the man principally interested, should be chosen as its head.

SCHWAB ASSUMES PRESIDENCY

Schwab's decision to assume the presidency of the Bethlehem Steel Corporation was an important one for its stockholders, as has since been

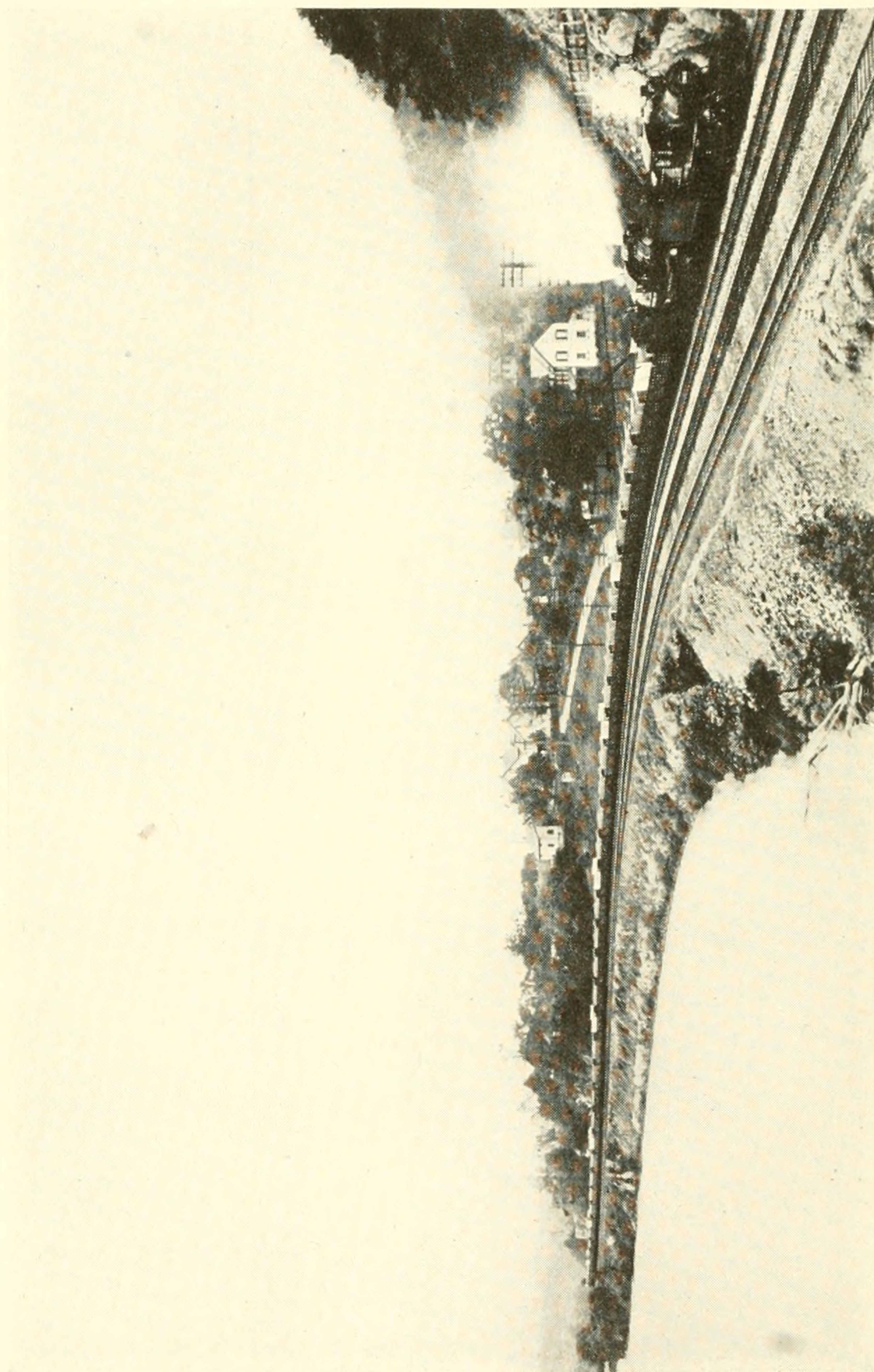
proven. It was an important one for the people of Bethlehem, a statement which may be amply proven by visiting that extremely prosperous community at any time. And, judging by the part that Bethlehem has played in the present war, it might not be too much to say that it was not without importance to the world.

Once decided, Schwab did not do things by halves. He had not long completed the erection of a palace in New York at a cost of several millions of dollars. But, like his former chief, Andrew Carnegie, he believed that personal supervision was necessary to eminent success in the management of an industry, and he closed up the costly mansion and took up his residence in quiet Bethlehem, where he could be in constant touch with the operations of the Bethlehem Steel plant, the most important, by far, of the activities of the corporation.

In December, 1904, the Bethlehem Steel Corporation employed 9,461 workers. It now gives work to approximately 60,000. Then the holding company for a small steel plant, and little else; to-day it is the second largest steel organization of the world, and the largest producer of war munitions. Created, as remarked above, from the débris of a failed company, it is now paying 30% on its common stock and earning many times that, being probably the most prosperous

of steel companies in the world, certainly in the United States. During the same time Bethlehem has changed from a somnolent town to a bustling, active and wealthy one.

One thing was the cause of all these changes. It was the coming to Bethlehem of Charles M. Schwab.



LARGEST TRAINLOAD OF STEEL EVER SHIPPED LEAVING BETHLEHEM

CHAPTER II

WHEN SCHWAB WENT DOWN TO BETHLEHEM—EARLY EXPANSION

WHEN Schwab went down to Bethlehem he found a gigantic task set before him—that of converting into a paying enterprise the relics of the failed United States Shipbuilding Co. It was one that necessitated years of hard work and many disappointments, but the former Carnegie head threw himself into the job with all the ardor with which he had once managed the great business of the old Steel King.

For years it was an uphill fight. But Schwab was determined to make the Bethlehem Steel Corporation rank big among the steel-producing concerns of the world. His ambitions for it had scarcely any limits. And to attain his end he willingly threw into the company the greater part of his fortune and for years struggled on with hardly any return.

Schwab, it has been said, had two ambitions regarding Bethlehem. One that the stock should have behind it assets of \$1,000 a share, and the other that it should rival the great Steel Corporation in the multiplicity of its products. In fact, Schwab saw in the Bethlehem Steel Corporation, poor a vehicle as it might have appeared to one

lacking his enthusiasms and his ability to realize on them, a basis for erecting such another steel company, if on a smaller scale, as he had outlined to Morgan on the occasion of the Simmons dinner, in December, 1900, from which banquet was born the United States Steel Corporation.

Schwab is one of those men who can dream and not make dreams their master. His enthusiasms are things to be reckoned with. A prominent banker of Bethlehem said to me in this connection:

"I came to Bethlehem shortly after Schwab did," he said. "Not long after my arrival I was invited to a dinner at which Schwab was a guest and he was asked to speak. During his talk he made certain statements about the future of the Bethlehem Steel Co. and of the community, which caused me a great deal of secret amusement. 'This man,' I said to myself, 'is a dreamer; he is promising the impossible.' But I have lived to see everything that Schwab prophesied come true, and even more. I am converted. Whatever Charles M. Schwab says he will do, I know he will."

The story of Bethlehem Steel is unquestionably the story of Charles M. Schwab. The success of the company has been his success, and no one other's. What Bethlehem is to-day is due entirely to the genius of Charles M. Schwab. He

himself denies this and gives much of the credit to his assistants in the work, but it is so, nevertheless.

Some twenty years before the Bethlehem Steel Corporation was chartered the old Bethlehem Iron Co. had gone into the manufacture of armor plate and other war material, largely at the solicitation of a member of the Cabinet of that period. When Schwab took charge of the plant he found that it was equipped almost exclusively for these purposes and that there was not enough demand from this source to promise continued earnings. The United States was not purchasing enough armor plate and similar products to support a company of the size of Bethlehem devoting all its energies to this end. So one of Schwab's first actions was to set about the remodelling of the plant to manufacture commercial steel.

In 1905 Bethlehem Steel took contracts from the United States Government aggregating \$4,455,470. In 1906 this decreased to \$4,056,062, and in 1907 to \$2,635,054, or not much more than half of what it had been in 1905. But in the meantime the company had been busy erecting a steel rail-mill and structural mills, the first of which began operations in the latter part of 1907 and the others shortly after. Bethlehem, for many years, has been an important producer of rails and one of the leading producers of structural material in the

country. Since the erection of the mills referred to, which incidentally involved the building of a new plant from the ground up, the company has gradually and constantly expanded its output of commercial material and is even now constructing a large merchant steel plant.

Another handicap under which the new corporation suffered was that the old shipbuilding company, out of the ruins of which the Bethlehem Steel Corporation was formed, had accepted contracts for a number of ships, some of which were for the United States Government, at prices which foredoomed it to a loss. This necessitated the deduction from surplus shortly after the new company began business of large sums to meet these losses, and they were further added to by the San Francisco earthquake, in January, 1906, which disturbed the labor situation in that city where, at the plant of the Union Iron Works, one of the Bethlehem subsidiaries, the ships were building.

THE BETHLEHEM BONUS SYSTEM

The enormous success of the Bethlehem Steel Corporation has been undoubtedly due in great part to the bonus system, of which so much has been written in the past year. This bonus system is nothing more or less than the setting of a cash premium on personal efficiency and endeavor. The Schwab plan differs from most other so-called profit-sharing plans in that every individual com-

ing within its scope gets directly the fruit of his own efforts and gets it quickly. For the head of the company believes that the average man cannot become enthusiastic for a reward for applied endeavor a year or more ahead, nor will he give the best that is in him if his return is on a pro rata basis with the entire organization.

The Bethlehem bonuses are paid monthly, very shortly after the salary checks are sent out, and so each man is constantly keyed up to the highest pitch of efficiency of which he is capable. And payment is made for the work on which that particular individual was engaged—and no other. This applies to each worker in the organization, with the exception of the executive officers, whose work covers the entire company and who must therefore be paid on the general results.

Let us take a few instances of this bonus plan and how it is worked. The figures given, be it understood, are purely empiric. Suppose that the worker is the superintendent of a blast furnace and the average cost of converting ore into a ton of pig iron is one dollar. If, for one month, the superintendent in question succeeds in maintaining an average cost of 95 cents, he receives an addition to his salary of one cent for each ton of iron produced. If he reduces the cost to ninety cents his bonus would increase progressively and be, say, 2½ cents a ton, while if he reduced cost to

eighty-five cents his bonus would be, not three cents a ton but five. Thus each reduction brings still greater incentive to further effort.

A worker on shell castings, for instance, is paid 22 cents an hour and is given a job which should take five hours and on which his pay would be \$1.10. If he got through the work in three hours his pay would be \$1.10. That is, the saving in labor cost would come to him, the company gaining by increased production.

Schwab has repeatedly remarked that he is not in business to make steel, but to make money for himself and the other stockholders of Bethlehem Steel. The manufacture of steel is merely the means to this end. This is exemplified by the manner in which he applies the bonus system to his salesmen. These men are paid not on the tonnage they sell, but on the profits that accrue to the company from the sales they make. This discourages the salesman from cutting prices to get business, encouraging him to use his wits to obtain the best prices possible in the market. Let us say that a certain steel product costs \$20 a ton to produce and the market is \$22 a ton. A and B are covering certain territories and A, in order to secure an order for 10,000 tons, makes a price of \$21, while B, on another inquiry, refuses to cut prices and, by brisk salesmanship, sells 4,000 tons at \$23; B's commission would be larger than A's,

although A would have sold more than twice the tonnage that B sold.

What results may be obtained by the bonus system can be illustrated by the results in a concrete case. Some time before the organization of Bethlehem Steel Schwab had built in New York a palatial residence on West End Avenue. He told me that his monthly upkeep cost was around \$4,500 a month. Finally he decided to apply to the management of this home the same plan by which he had made the steel company profitable, and, calling the superintendent of the property to him he told him that he had figured the monthly cost should not exceed so much, naming a certain figure. "For every hundred dollars of cost below that I will pay you a bonus of so much," he said. The result has been, according to Schwab, that the total cost of running the property now does not exceed \$1,600, yet the superintendent is making more money than he had ever hoped, more than many men in what are usually considered higher and more profitable positions, and the property is as well, if not better, managed, than ever before. Schwab simply gave the man the opportunity to earn all he could, and every man works best and most heartily under this urge.

A few years ago Bethlehem Steel absorbed the Fore River Shipbuilding Co. at Quincy, Mass., a concern that was a failure. Without changing

the men in charge, but simply by giving them the incentive contained in the bonus plan and by his own inimitable leadership, he succeeded in securing net profits of not far from \$1,000,000 in the first year in which the company was in his hands.

Wonderful tales have been told of the enormous bonuses paid to officials of the company under the plan. They are probably exaggerated, but in 1914, during which year Bethlehem Steel earned about 32½% on its common stock E. G. Grace, now president of the corporation, drew down a bonus of over \$200,000, so that it is not at all improbable that his bonus in 1915, when some 112½% was earned, was near the \$1,000,000 with which he has been credited.

Schwab believes in giving every man the opportunity to make good, and seeing that if he does he realizes quickly and in cash. Every man in the plant who comes under the operations of the bonus plan has the chance to show his ability, and if it be above the usual, if he has initiative and courage, he is well in line for advancement. For the work of each individual, by the very necessities of the plan, is watched carefully. This opens up for each ambitious man the highest possible returns and rewards.

One disadvantage of the plan has been urged—that those sharing in it are inclined to drive those under them, so as to realize its benefits.

If this were true the disadvantage would go far to offset the good results of the plan, but as the plan has been worked out so that it now applies even to the majority of the common laborers in the plant, it can hardly work a hardship to anyone. That it is extremely popular with the men is proved by the fact that every worker who joins the Bethlehem Steel forces is anxious to have himself put in line to receive its benefits.

It is hardly necessary to point out that the bonus plan, which makes it necessary to keep a careful check on the work of each and every employe of the big plant at Bethlehem, as well as of all the other subsidiary companies, also serves to reveal quickly what men are failing to keep up to what should be expected of them, and so the inefficient or idle workers are soon weeded out of the organization.

SCHWAB'S EXPANSION PLANS

Schwab began his plans for the expansion of the Bethlehem plant as soon as he took charge of it. For several years previous a gradual extension and modernizing of the old plant had been going forward, but the new commander in chief adopted a somewhat changed policy, beginning immediately the erection of new and complete steel-making units. About 250 acres of land adjoining the then existing plant was purchased and

the new furnaces, rolling mills, etc., were constructed thereon.

In the year 1905 a total of \$2,013,732 was expended for new construction work. \$2,990,765 had been appropriated for this purpose but the year's program was not completely carried out at its close. Other extensions carried out by the Bethlehem Steel Corporation during the year at plants of other subsidiaries called for a total expenditure of \$428,750, so that the corporation spent altogether for such purposes \$2,442,482.

As the corporation was not in a particularly strong financial condition it was necessary to finance these operations by the issuance of bonds, and so a new issue of \$12,000,000 five-per-cent., twenty-year first-extension mortgage gold bonds was created. At about the same time the \$3,000,000 collateral-trust sinking-fund six-per-cent. bonds were called in. The new bonds were not actually issued until the following year.

The financial report of the corporation for 1905 showed gross sales of \$14,554,117, and a total income of \$3,468,802, of which \$153,673 was derived from investments and rents. After interest charges and allowances of \$295,671 for probable loss on the construction of the ships already referred to, with \$400,000 depreciation a balance of \$2,365,399 was left for the stock. Preferred divi-

dends of \$521,780 were paid, and a net surplus of \$1,843,619 carried to profit and loss.

The years 1906 and 1907 were hard ones for the new corporation, notwithstanding the fact that they were unusually prosperous ones for the steel trade generally. Bethlehem, it should be remembered, was at that time engaged almost entirely in the making of certain specialties, and its rail and structural mills, which later were very profitable, had not even started operations until around the close of 1907. In 1906, too, severe losses were occasioned, as already explained, by the San Francisco earthquake.

In 1906 the corporation reported net manufacturing profits of \$1,859,353, less \$647,193, the estimated loss on the construction of ships taken by subsidiaries before its incorporation. Other income was \$152,015, the total income being \$1,364,175. Interest charges amounted to \$601,426, leaving a balance of \$762,749. After the payment of \$894,480 preferred dividends a deficit of \$161,323 was shown for the year. From the previous surplus of \$1,843,620 reserves for probable other losses, depreciation, etc., were deducted to an amount of \$1,118,467, so that the actual profit and loss surplus at the year's end was only \$593,421.

In 1907 net income was \$2,638,957, of which \$67,705 was derived from sources other than the manufacture of steel. Interest charges were

\$1,020,168, leaving a net balance for dividends of \$1,618,789.

Only \$111,810 was paid in dividends. These had been declared towards the close of 1906. And from early in 1907 until 1913 there was not a single cent of dividends distributed to Bethlehem Steel stockholders.

In 1907 Schwab adopted, and followed for years, a policy of the most stringent conservation of profits, using these for expansion. Although a large part of his own fortune was invested in Bethlehem Steel, he refused to consider the question of dividends. The difficulties that the company met with in its early years had convinced him that he could not eat his cake and have it, and that if he wanted the corporation to be such an organization as he had planned he would have to sink back into new construction all earnings, awaiting for returns until its position was unsailable and there need no longer be any fear of paying, and paying liberally.

PLOUGHING BACK EARNINGS

It was to the undeviating following out of this policy that Bethlehem Steel's earnings have grown so enormously in recent years—for although the huge profits of 1915 were largely attributable to the war in Europe and the consequent demand for the company's products, earn-

ings for several years previous had been excellent, and it was due to this very conservation of profits that Bethlehem was in a position to take full advantage of the war demand and to reap the benefits therefrom.

Up to and including 1907 dividends had been paid as follows on the preferred stock: 1905, 3½%; 1906, 6%; 1907, three-fourths of 1%.

Although the corporation had not long before disposed of \$12,000,000 of bonds, chiefly for the purpose of new construction, in 1907 it was again found necessary, to carry on the new construction program, to issue \$2,500,000 of notes and at the close of that year the company showed a funded debt of \$21,366,000, while its total surplus was only \$2,100,000.

But meantime the extension policy was being vigorously pushed, the annual report showed that nearly \$6,000,000 had been spent in carrying it out during the twelve months, while in the three years then ending a total expenditure of \$12,960,993 had been made. The benefits of this new construction first began to make themselves felt towards the close of 1907 when, on September 3, the newly completed rail mill was put into operation, rolling 33,754 tons before December 31. The new structural mill started to produce on January 8 the following year, while a second structural mill was finished in the summer of 1908.

Hard times were experienced in the steel trade in 1908, following the panic year, and Bethlehem suffered with the rest. Total net income was \$2,192,355 and the surplus after charges and depreciation was \$366,864. No new bonds or notes were issued during the year and \$1,509,725 was spent on capital account, making the total thus spent since the company's organization up to the end of 1908 close to \$14,500,000.

During 1908 the Union Iron Works absorbed the San Francisco Dry Dock Co., which owned three floating and two graving docks. This was merely a dock company, having no facilities for repairs, and its merger with the Union naturally worked to the advantage of both. For the property of the Dry Dock Co. \$312,500 was paid in cash and \$1,000,000 in bonds paying 6%, and in addition an underlying debt of \$500,000 in 5% bonds was assumed by the purchasing company. This was the first step in the expansion of the Bethlehem Steel Corporation by purchase.

Returning prosperity began to make itself felt by Bethlehem Steel in 1909, when earnings were \$2,836,593 and \$800,811 was carried to surplus after all charges. Perhaps the best indication of the betterment was to be found, however, in the fact that the corporation closed orders to a total of \$28,696,517 during the year, as against \$14,458,998 the previous year, and that orders on

the books at the conclusion of the two periods were \$7,592,503 for 1908 and \$14,073,834 for 1909.

Meantime Bethlehem Steel was going more and more heavily into debt to erect new plants. In November it issued \$7,500,000 of 6% gold notes, part of which was put out for the purpose of redeeming the older issue of \$2,500,000, while the remainder was to be used for new construction. This brought the total funded debt of Bethlehem up to \$28,070,267 on Dec. 31, 1909.

One of the new improvements, or additions, planned was the construction of Bessemer converter to be used in conjunction with the open-hearth furnaces in producing steel by the so-called duplexing process. Additional open-hearth capacity was also decided on and the work of building the furnaces started during the year. Nor, while attention was centered upon the steel plant, were the other subsidiaries entirely forgotten. The car plant of the Harlan & Hollingsworth company was extended materially.

Early in 1910 Bethlehem Steel made an important contract with the Didier-March Co., a Berlin concern, for a supply of coke for twenty years, the steel company having the option of purchasing the coke plant at the expiration of the contract time. The daily supply of coke contracted for was 2,000 tons, although the steel company

had the right to demand a greater, or accept only a smaller, supply if trade conditions warranted.

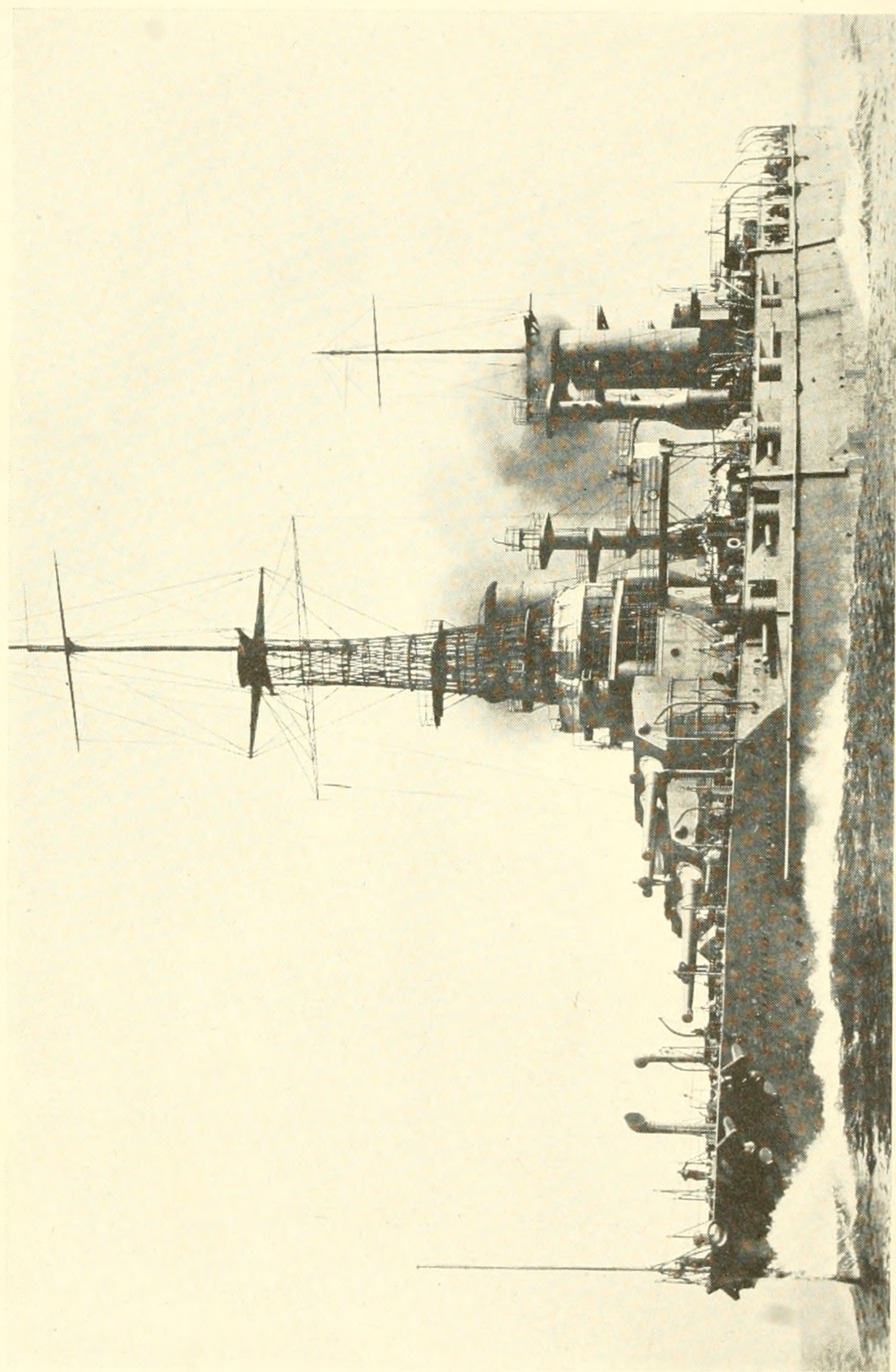
Early in 1910, also, Bethlehem Steel succeeded in closing a contract with the Government of Argentina for armor plate and other naval material amounting in value to approximately \$10,000,000.

In the company's report for 1912 we find the statement that the construction program is about completed with the work finished during the year, or nearing completion at its close. Obviously a drastic change in plans followed the writing of the report, as Bethlehem's expenditures for new construction since it was written have completely dwarfed all that went before.

Earnings in 1910 were \$4,343,862 and the net surplus for the year \$2,001,612. These were the largest earnings so far reported by the company and they brought the final profit and loss surplus at the close of the year to \$5,269,688.

But 1910 earnings were exceeded in the year that followed, as indeed, the company has set a new record for earnings every year since. The gain in 1911 was perhaps all the more surprising as the year was far from being a prosperous one for steel companies generally. Net earnings of the Bethlehem Corporation were \$4,579,565, and the surplus after charges \$2,038,979.

In 1912 earnings again reached a new top level,



ARGENTINE BATTLESHIP "RIVADAVIA," BUILT BY THE BETHLEHEM STEEL CORPORATION

being \$5,114,440, with a surplus of \$2,063,640. The corporation increased its funded debt during the year by the issuance of \$14,200,000 first lien, refunding mortgage bonds, at the same time retiring its short-time obligations amounting to \$10,000,000. The Harlan & Hollingsworth Corporation also issued \$450,000 of bonds and, at the end of 1912 the total funded debt of Bethlehem and its subsidiaries was \$32,441,533.

AN EPOCH-MAKING CONTRACT

About the end of 1912 Charles M. Schwab made a trip to Europe and while there closed a deal that is likely to have a great and lasting effect upon the future of the company. This was the obtaining for Bethlehem of the Tofo Iron Mines, in Chile, supposed to contain, at the lowest estimation, one hundred million tons of iron ore. When Mr. Schwab announced the purchase he said that the ore showed an iron content of $66\frac{2}{3}$ per cent. Actual yield from what ore has been used shows a content of over 67%. The importance of this supply of ore, possibly the richest known deposit of its size, may perhaps be realized when it is considered that most of the ore of the Lake Superior region has an iron content of around $51\frac{1}{2}$ % and that every change of a single point in the metallic content means a decided difference in the cost of producing iron therefrom. The contract provided that Bethle-

hem Steel should mine not less than 1,000,000 tons of ore a year, paying for all ore taken out of the ground a royalty of 12½ cents a ton, besides a fixed annual payment of \$200,000, whether any mining was done or not.

Dividends on the preferred stock were resumed in 1913, the rate established being 5%. Earnings this year were \$8,752,671 and the net applicable to the stock \$5,122,703.

The important happenings of this year, in the way of expansion were the purchase of the Fore River Shipbuilding Co. of Quincy, Mass., and of the Titusville Forge Co. of Titusville, Pa. By the purchase of the first-named concern Bethlehem was put in a position to build, on the Atlantic seaboard, battleships completely armored and equipped. The Fore River plant, with its shipbuilding facilities, complemented and rounded out the armor-plate and munitions plants at Bethlehem.

In 1914 earnings reached \$9,649,668, and net profits on the stock were \$5,590,020. Notwithstanding this it was not until after the close of the year that Mr. Schwab and his associates decided to restore the full 7% rate on the preferred stock. Although earnings were largely in excess of the amount required for the preferred dividend, and a handsome balance would have been left even if a small disbursement had been made on

the junior issue, the policy of returning all profits possible to expansion was still being followed, nearly every year seeing from \$4,000,000 to \$6,000,000 thus expended.

Bethlehem's large earnings in this, the year when the Great War started, and when all American industry was halted and steel-company profits vanished, can only be explained by sales of war material both before and after the beginning of hostilities. Early in the year several big guns for Germany were completed and towards its close orders from the Allied Powers, then at grips with Germany, began to come in.

Yet it was not until the following year that the big influx of munitions orders came to this country. Bethlehem, the best-equipped of all American concerns to make shells, guns and other death-dealing machines, naturally benefited more than any one else. The American Krupps is reputed to have actually closed contracts for well over \$350,000,000 of such material, and this figure is probably correct.

After paying all charges Bethlehem Steel, in 1915, was able to report earnings on its stock of \$17,762,813. This was sufficient to pay the preferred dividend and to leave a balance of over \$112 a share on the common stock.

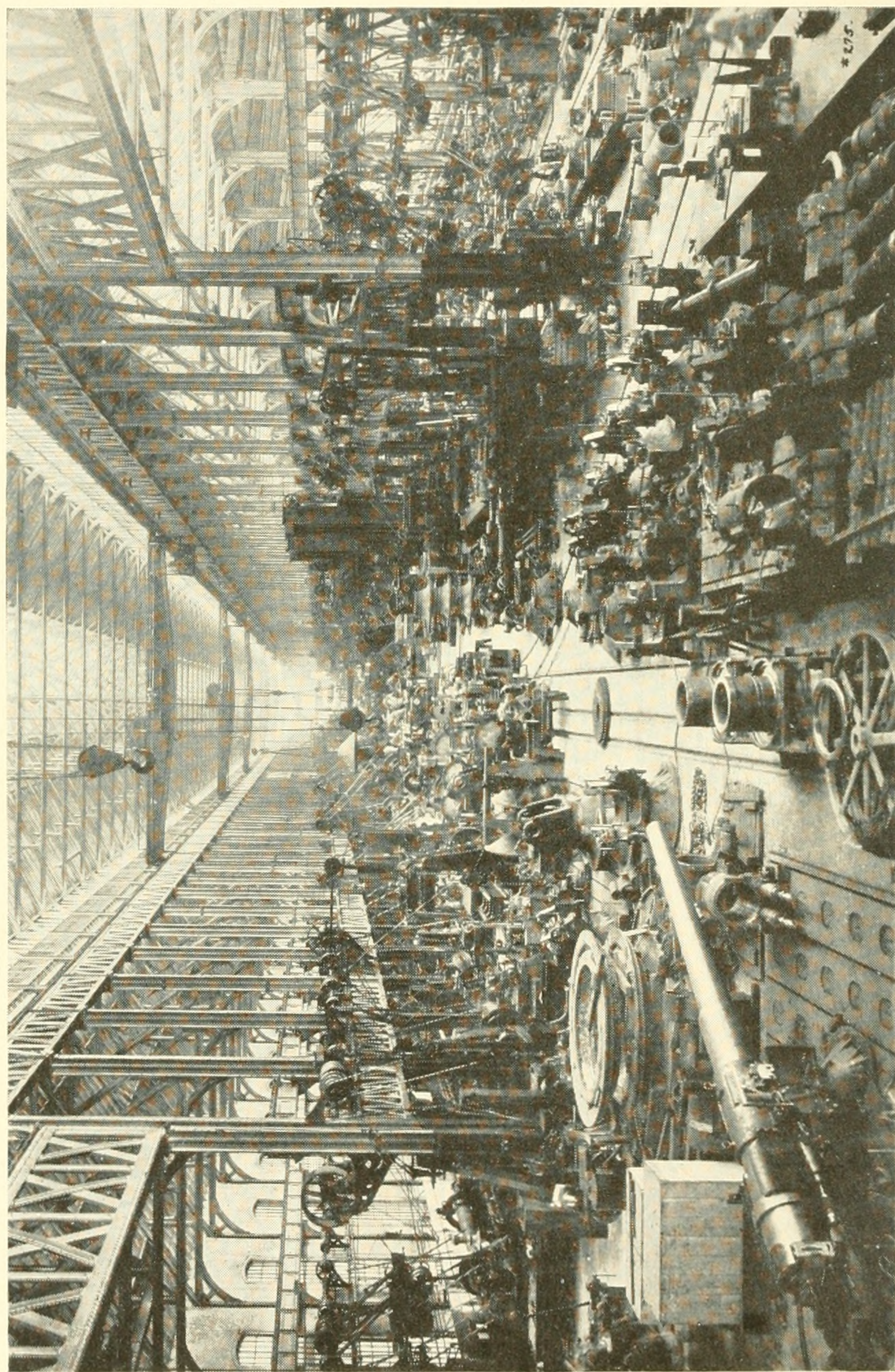
The war had put Bethlehem in the millionaire class!

CHAPTER III

BETHLEHEM AND THE WAR STOCK BOOM—POLICY OF CONSERVATION OF PROFITS ADDS TO VALUE OF SECURITIES. EXTENSION BY CONSTRUCTION AND ABSORPTION—OFFERS TO BUY CONTROL.
THE QUESTION OF VALUE.

JUST about a year ago, in a world war-mad, the New York Stock Exchange was the scene of the greatest "boom" it had ever known, the boom in the so called "war brides." The flood of munitions orders released by the allied powers, and its effect upon the profits of munition and other plants capable of being turned into munitions factories, was just beginning to be realized; and there was witnessed an enormous demand for the securities of such concerns, such a vast wave of buying, that many securities, formerly neglected, almost forgotten in the trading of more peaceful times, climbed upward to dizzy heights of value.

First and chief of these was Bethlehem Steel. Bethlehem was the first American company to get a "war order." Late in 1914 Charles M. Schwab went over to Europe and brought back with him contracts for about \$50,000,000 of guns. Later more orders, some of them larger, were placed with the company, which up to that time had never done a year's business of as great a gross as one of these contracts, and the eyes of the investing and speculating world began to turn toward Bethlehem common.



INTERIOR VIEW OF BETHLEHEM GUNSHOP

In 1907 Bethlehem Steel common sold as low as \$8 a share—and it is likely that this price did not discount its actual value by a great deal. In 1913 and 1914 it sold, most of the time, around \$30, and was not regarded with great favor even at that level. But in 1915, taking its legitimate place in the van of the war stocks, it advanced by leaps and bounds to \$600 a share, while conservative investors, who had never seen a non-dividend paying stock sell at such a price—one that seemed to be enormously inflated—held their breaths and awaited the crash they deemed inevitable.

Bethlehem Steel common, once liberally water soaked, if not, indeed, altogether composed of that fluid, was having real assets, cash assets, put behind it at an unprecedented rate. Of the two billions of dollars, or so, of guns and ammunition that the Allies had ordered here, the company had taken three hundred millions or more. And Bethlehem, be it remembered, had been for thirty years, an ordnance company. The business was not a new one to its management, as it was to those of many other companies. These orders represented profits, sure and large.

It was this that caused the boom in Bethlehem. But even had the war not occurred, it was inevitable that, sooner or later, the stock would have sold at high figures, for it had, at the end of 1913, assets justifying far higher prices than were then

offered for it, and it had one asset, intangible but more valuable than all the rest, the leadership of, and the organization created by, Schwab.

As far back at 1913 I expressed the opinion that Bethlehem common would one day sell at \$300 a share. This opinion, naturally, was not based upon the expectation of war profits, which made it fulfil itself far earlier than I had expected. But I believe, that war or no war, Bethlehem would have sold at that level, because I realized vaguely what were Schwab's plans for Bethlehem, how he was carrying them out by putting earnings back into new construction, thereby creating a surplus of assets which was bound to affect the company's earning power, and therefore its stock value, in the future. In 1913 Bethlehem's assets behind its common stock were well above the amount of stock outstanding, yet Schwab, although earnings of the company might have been held to justify the payment of dividends, continued turning profits into new assets.

Had attention been directed to Bethlehem before the war the analytical investor would have quickly realized its value. That the stock was overlooked is proven by the fact that, in the years 1913-14 its net earnings after deductions of all kinds, represented approximately 100% of the selling price of Bethlehem Steel common.

The high and low levels for the security in the

twenty-four months of 1913-14 were $46\frac{5}{8}$ and 25, but the general level was around \$30 a share. In 1913 Bethlehem Steel reported a profit of \$27.50 for each share of common outstanding, while in 1914 this was increased to \$32.60 a share, an average of \$30.05. I can think of no other company making public the record of its operations and its balance sheet, the stock of which sold continuously so much out of proportion to its earnings.

The principal reason for the failure of Bethlehem stock to respond to its large profits was, of course, the common knowledge of the fact that Schwab was determined not to pay any dividends until the company was so solidly built up and its future, so far as was humanly possible, so assured, that dividends, once started, would only be changed to a higher rate, and never passed. This meant that to purchase Bethlehem was to wait a long time for a return on your investment—but the return promised was well worth the waiting for.

As it happened the wait was not too long. The war came, and brought unexpected profits, and, early in 1916, a dividend of \$30 a share was declared.

Up to the close of 1913, or seven months before the war, Bethlehem Steel had put \$40,000,000 into new construction, and it had assets behind each share of its common stock well over \$200. But construction went merrily forward, except for a

temporary stoppage during the severe financial depression in the first months of the war, and at the end of 1915 Bethlehem reported net assets behind its common stock of \$310 a share. Up to the present the total amount expended for new construction is \$69,000,000, or $4\frac{3}{5}$ times the amount of common stock outstanding. Bethlehem is greatly undercapitalized!

And still the building program is not completed. The company is now spending \$1,500,000 each month for the erection of plants—it does not spend more because it can't get more men to do the work—and its directors have approved appropriations to a total of \$70,000,000 to be expended within the next three years. This will mean so much more earning power and value placed behind the company's securities, for every cent to be spent will be taken from earnings.

Shylock, asked if his gold and silver were ewes and rams, replied, "I make them breed as fast." Schwab might say this of Bethlehem earnings.

That even these immense expenditures do not satisfy the ambitious plans of the Chairman of the Board of Bethlehem Steel is shown by his action when Eugene G. Grace, president of the company, handed him the memorandum of the proposed extensions, with their cost; Schwab smiled and wrote across the paper: "I won't be quite satisfied until this grows to \$100,000,000."

Through its recent purchase of the Pennsylvania Steel Co.—of which more later—Bethlehem Steel obtained control of the Maryland Steel Co., which owns and operates a shipbuilding plant and rail mill at Sparrows Point, Maryland. The location of the plant is without peer in regard to foreign trade advantages. It is possible to ship to it, at an extremely low freight charge, the rich Mayari ores from Cuba which it now uses—I understand that, in normal times, this ore can be brought over for \$1 a ton, with chartered vessels and the rate will be materially lowered when Schwab builds ships specially for the purpose—and will also be able to use the ores from the Tofo mines, in Chile, now being exploited by the Bethlehem Steel Co. In attempting foreign markets the Sparrows Point plant will not be handicapped by return freights on finished material to the seaboard, for it is right on tidewater—a double saving—and it will therefore have an “edge” of \$1.50 a ton or more on every competitor in the United States.

More, steel may be shipped from the Maryland plant to all points on the Atlantic coast of the United States at a lower freight rate than from Pittsburgh or any other steel center. It can be sent in barges to New York, Philadelphia, Boston and other seacoast cities, thus giving the plant the benefit of a water rate as compared with a rail rate. And, in steel competition, freight rates are more than half the battle.

With Schwab guiding its destinies Sparrows Point will become a great steel center. Within the next three or four years from \$25,000,000 to \$30,000,000 will be spent there to make it so. Already 1,000 acres of land have been acquired for extensions and a big tin plate plant, the first item of new construction, is in course of erection. Later a battery of by-product coke ovens will be built. Still later, it is likely, a structural mill for making the "Bethlehem section," and possibly plants for the manufacture of wire, tubes and other products—for Schwab plans to make every line of steel eventually.

Many years ago, in December, 1900, Schwab told, in a speech, his dream for a steel company. Out of this speech, among the listeners to which was the late J. Pierpont Morgan, was born the great United States Steel Corporation. But Schwab is now realizing that dream for himself with Bethlehem Steel as his instrument. The expenditure of \$70,000,000 recently authorized, will go a far way towards making Bethlehem the company of which he spoke then.

Bethlehem has been the *magnum opus* of Schwab's life. It has been, in so far as corporation can be, an expression of the man himself. He nursed it through its infancy, guided it during its adolescence, and now that it is, for its size, the richest—it is one of the largest—steel company

in the world, that he should regard its success with pride is not alone justifiable but entirely natural. He has made it; established its foundations securely. "I am the old man of Bethlehem, the younger men must now take charge," he says. Nevertheless, he is the real man at the helm today.

When Schwab became President of the United States Steel Corporation, the great billion dollar company, at its organization in 1901, and when, two years later, he resigned, there were many who regarded his success as entirely a matter of luck, attributing it to the fact that he happened to get in the good graces of Andrew Carnegie, and the story of Carnegie's attention being attracted to him by his singing, was told to illustrate this luck. As a matter of fact Carnegie was too shrewd a man to be influenced to any great extent in that way. He himself admits that he owed his great success largely to Schwab's ability.

But the world at large did not think so then. And Schwab was keenly aware of this, so when he took charge at Bethlehem he was determined to demonstrate that he had the ability to make a great steel company out of rather unpromising material—and he has done it.

How much of his private fortune Schwab actually put into Bethlehem since its organization may never be known. In the company's early days, before its credit was robust, he personally

endorsed every note it issued—and it had at one time \$7,500,000 of notes outstanding. He himself purchased one-third of the total of every bond issue, and continued to do so until about five years ago, when it was no longer necessary. More than this, from time to time he lent large sums of money to Bethlehem to tide it over temporary emergencies, probably millions in all, and never even demanded the company's note for these amounts. Bethlehem was his to stand or fall by. No other stockholder ever came to its assistance. Is it any wonder, then, that he feels as he does about Bethlehem Steel? He had borne the burden; to him is due the credit.

Had Schwab cared to take his profits from Bethlehem he might have done so years ago by paying dividends, amply justified by earnings, on the preferred stock. But he refrained. In 1915, when the company was the focal point of the financial world, he had many offers to dispose of his holdings at exceedingly attractive prices. One of these was from German interests—possibly the German Government itself—another from powerful New York bankers and capitalists.

These offered Schwab \$200 a share for 90,000 shares of preferred and \$600 a share for 60,000 shares of common stock, or \$54,000,000 in all. This gigantic offer naturally gave the head of Bethlehem some pause for consideration, but nevertheless he refused to accept it.

“I asked for time and went home to talk it over with Mrs. Schwab,” he said. “I told her of the offer and requested her opinion.”

“She did not hesitate for a minute, saying, ‘I would never know what to do with all that money, and you could not live without your work.’ ”

“That settled it. I told the bankers that I would not sell.”

When Schwab told me that Bethlehem would spend at least \$70,000,000 within the next three years or so in new mills, he also stated that every dollar would be taken out of earnings, no new financing being contemplated for the purpose. And added with emphasis that every last cent would be used for increasing the company's output of commercial steel.

“I will spend nothing more for munitions,” he said.

This brings us to a subject that is of immense importance. Bethlehem's place is among steel companies proper, and not considered as a munition company.

For years steel men have regarded Bethlehem, not as a steel company, but as an ordnance concern—the American Krupp's. And there has been a good deal of reason for this, for Bethlehem, although producing a considerable tonnage of steel, has used much of it in manufacturing guns, armor plate and projectiles. And the greater part of

its earnings have been thus derived. But for many years past Bethlehem has been slowly and surely working on a steel program proper. A program outlined from the very day that Schwab took control, although he was unable to put it into effect as he would have wished at the beginning because of financial reasons.

It will be remembered that the first important act of the newly organized Bethlehem Steel Corporation was to start the erection of a rail mill at Saucon, and of a structural mill at the same place. The structural mill has been one of Bethlehem's great successes.

Early in the present century Henry Grey invented a structural steel section which he offered to every important steel mill in the country. It was a design for making in a single piece the big beams used in erecting buildings, instead of riveting together a number of different pieces of steel. But Grey's invention was not thought much of. The old way, most steel men thought, was the best, could not be improved upon, and so Grey's section was left on his hands.

Schwab, however, had been impressed by the design, and, no sooner was he in the saddle in Bethlehem than he negotiated with the inventor and purchased the patents to the new beam. It was to manufacture this that the big structural mill at Saucon was erected.

The wisdom of his course has been proven. Since the first day on which Saucon mill began to roll what is now known commonly as the Bethlehem section it has been operated at full capacity without a single break. This through some of the most serious depressions from which the steel industry has suffered, periods during which every other structural mill in the country was operating at a very low percentage of full.

The popularity of the Bethlehem section is now established. And its production will be increased. Already the demand warrants this course. It has no competitor, and Bethlehem is the only concern able to make it.

During the past three or four years Bethlehem Steel has expanded enormously, not alone by the expenditure of money for new construction but by the acquisition by purchase of other companies. The first important purchase was that of the Fore River Shipbuilding Corporation, at Quincy, Mass. The Fore River Co. had been struggling along under difficulties for years, and had at the time of the acquisition contracts for two battleships for the Government of Argentina on which there was promise of a big loss. Schwab acquired control for Bethlehem at a figure around \$700,000, and under his skilful guidance, succeeded in repaying the purchase price out of the operations of the first year following the sale. The Titusville Forge Co.

was purchased about the same time as the Quincy company.

Next came the deal with the Schneider interests, of France, giving Bethlehem control of the rich and vast ore fields of Chile. Then came the war and with it Bethlehem became rich, and has expanded more rapidly since.

In 1915 the Detrich & Harvey Machine Co., of Baltimore, was purchased. Early this year came the purchase, by the Union Works, a Bethlehem subsidiary, of the Alameda plant of the United Engineers Works, at San Francisco, and later Schwab acquired by purchase the Baltimore Sheet & Tin Plate Co. Finally came the biggest deal of all—the purchase of Pennsylvania Steel.

A few short years ago if it had been stated that Bethlehem Steel was buying Pennsylvania it would have been regarded as a case of the tail wagging the dog, for Pennsylvania Steel has long been one of the most important steel producing organizations in the country, with large plants at Steelton and Lebanon, Pennsylvania, and the plant of the Maryland Steel Co., at Sparrows Point. The company also is rich in its ore holdings, both in Cuba and at home. But within the past eighteen months the financial world has come to regard Bethlehem with something even more than respect.

A possibly unconscious tribute to Bethlehem's financial strength was paid it by the leading finan-

cial paper which, discussing the deal, suggested that if the minority Pennsylvania shareholders were not inclined to accept bonds for their holdings, Bethlehem would pay them for the \$4,000,000 or so of stock that they owned out of its "petty cash." Such a statement was not allowed to pass without comment from the humorous paragraphers, but, as the paper later replied, "Bethlehem can afford it." It was all a matter of comparison.

Pennsylvania Steel had \$20,560,800 preferred and \$10,750,000 common stock, and for this Bethlehem agreed to pay \$23,460,800, or par for the preferred and \$27 for the common. The total amount agreed on, however, was \$31,960,800, as \$8,500,000 cash lent the Pennsylvania Steel Co. by the railroad company of the same name was to be refunded by Bethlehem.

Besides the stock capitalization bonds outstanding of Pennsylvania and its subsidiary companies total \$25,214,000. To take up these securities a new issue of 5% Bethlehem Steel Co. bonds has been authorized.

By the purchase of Pennsylvania Steel Bethlehem, at one fell swoop, doubled its capacity for making pig iron and steel, increased the variety of its products, provided itself with a tidewater plant and made itself the biggest shipbuilding concern in America.

The combined pig iron capacity of the two com-

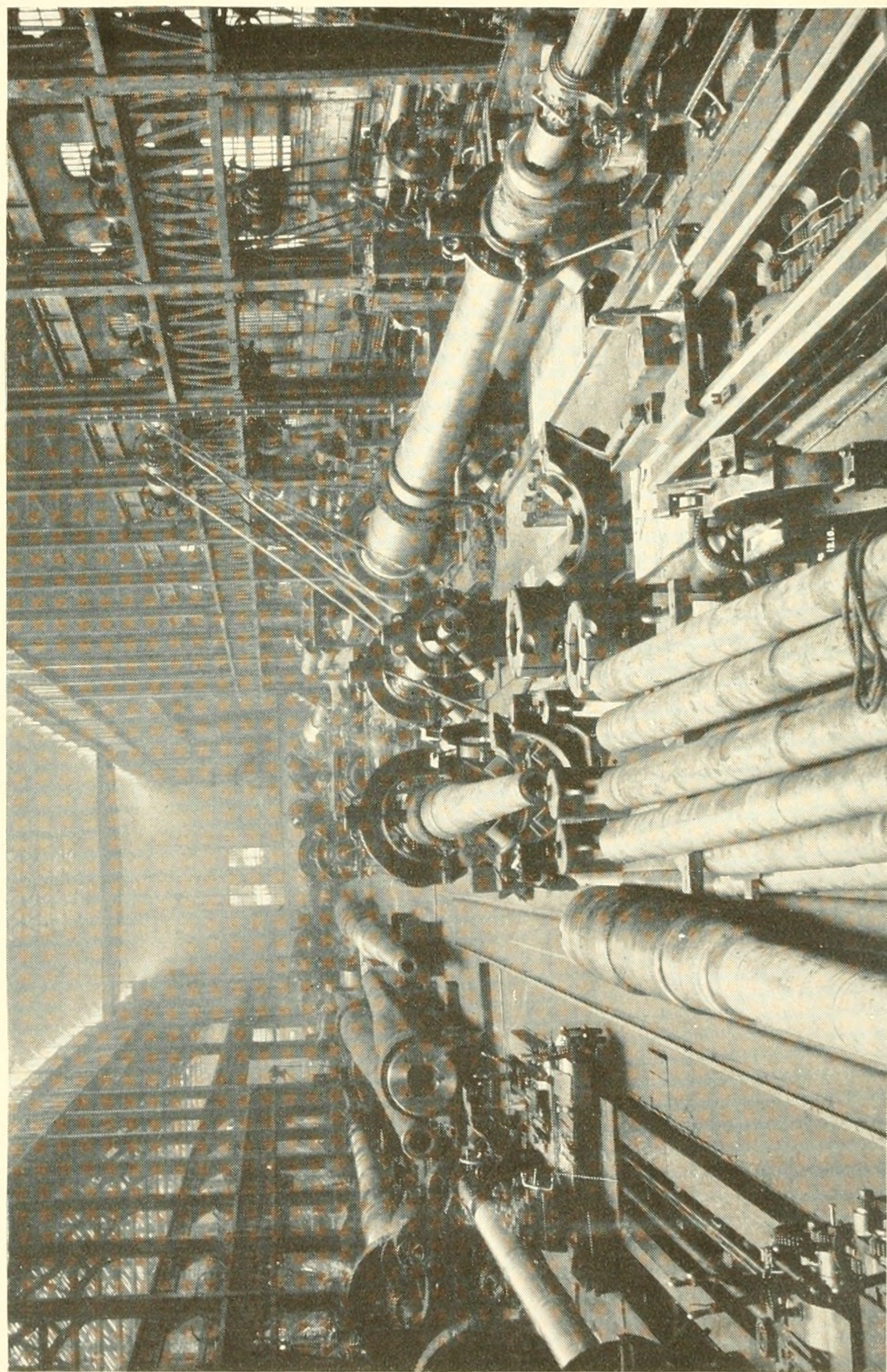
panies is about 2,300,000 tons a year, and when furnaces to be built are ready, will be about 4,000,000 tons. The combined steel ingot capacity is 3,500,000 tons, and the capacity for finished steel something over 2,000,000 tons.

By the purchase of the Maryland Steel plant Bethlehem increased to five the number of its shipyards, as follows: Maryland Steel, Harlan & Hollingsworth, Union Iron Works, Samuel L. Moore & Sons and the Fore River Shipbuilding. On March 31, just after the deal was put through, it was estimated that there were building in American yards 901,000 tons of ship tonnage, and that 341,000 tons, or 38% of this total, were building at the five plants named.

The figures given above illustrate forcibly the growth of Bethlehem since 1904. In that year the company's pig iron capacity was 120,000 tons. Including the blast furnace capacity of Pennsylvania, it is now 2,300,000!

In 1905, the Bethlehem Steel Corporation employed about 9,000 men. It now employs, including the Pennsylvania Steel workers, nearly 60,000. A year ago there were between 13,000 and 14,000 men employed at South Bethlehem alone. Today there are 24,000.

The plant of the Bethlehem Steel Co. at South Bethlehem, the American Krupp's works, covers an area of 600 acres, stretching three miles along



BIG GUNS IN PROCESS AT BETHLEHEM SHOPS

the shore of the Lehigh River. This does not include the new plant at Reddington, a nearby town; and the company has 1,000 more acres of land which will later be built on.

At this plant there are now being turned out complete fully 25,000 shells of different sizes daily. This figure refers entirely to shells made entirely there, as the plant is shipping some 15,000 shells, many of the parts of which were sublet to other concerns.

The Bethlehem gun shops make almost every kind of gun used from the small one-pounder, firing a one inch bullet (diameter), to the big navy rifles used on the great British super-dreadnoughts and firing a shell of a diameter of sixteen inches, with a range of twenty miles.

In the armor plate plant is made every variety the shape of armor plate, for purposes both peaceful and warlike, for bank vaults and battleships. At this plant has been made the protective armor for vessels of many nations. In 1914, at the outbreak of the war, it was completing an order for armor plate for a big Greek warship—it was also making the guns for this vessel at its big gun plant—which was being constructed in Germany. The Germans took over the ship—but they did not get the armament.

What is the value of Bethlehem stock? This question, after all, is the one of paramount inter-

est to investors. Is it worth the price, between \$500 and \$600 a share, at which it is selling?

My personal belief is that Bethlehem common has an inherent value not far from \$1,000 a share.

When Bethlehem Steel was incorporated its common stock was all water. This is indisputable. But since that time \$60,000,000, in round figures, has been spent for new construction—to the end of 1915. With due allowances for depreciation this represents actual addition to plant value of over \$300 a share, and to this must be added additions to working capital made since 1904. An analysis of the company's balance sheet of Dec. 31, 1915, showed net assets for the common stock equivalent to \$310 a share.

Since the beginning of 1916 Bethlehem Steel has spent at the rate of about \$1,500,000 a month on new construction, and will continue to spend at this rate at Bethlehem alone until the end of the year. This does not include recent appropriations of \$70,000,000, already referred to, for construction at all the plants during the next three years.

By the end of 1919, then, Bethlehem Steel will have spent \$89,000,000 in new construction—from the end of 1915—equivalent to six times, or \$600 per share for its common stock. This construction implies additions to working capital of not less than \$15,000,000, or \$100 per share, in the same

period, so that it may be expected that the book value of Bethlehem common at the close of 1919 will be approximately \$1,000 per share.

As a matter of fact the value of the stock will increase more rapidly than these figures would indicate, for most of the earnings to pay for this construction work will be made within the next year. Bethlehem is now making profits of well over \$5,000,000 a month, and should keep up this rate of earnings, or better, until near the end of the year. So that some \$400 a share should be added to the value of the stock before Dec. 31, 1916.

From this must be subtracted any dividends paid. And here we come to "milk in the coconut." Will Bethlehem continue to pay dividends at the rate established early this year, or 30%?

For several reasons I am inclined to believe that it will. In the first place it has long been well known that the chief objection of Schwab's to declaring a dividend on the issue in the past was his desire not to establish a rate until it was practically certain that it could be maintained. Can a dividend of \$30 a share on Bethlehem common be maintained?

I can see no reason why it should not. Bethlehem Steel will have invested in plant and working capital nearly \$180,000,000 at the end of the next three years. To pay the regular 7% dividend on its preferred stock, and 30% on its common, a total of less than \$5,500,000 annually, would re-

quire a return on this investment of about 3%. This is far from a large yield, in fact it is a very small one, and it is a safe bet that Schwab and his associates will obtain one higher than this. And the yield will be increased proportionately with increasing capital expenditures with the possibility of still larger dividends.

In 1913 and 1914, before the war profits began, Bethlehem's average earnings net for stock were \$5,356,361 on an investment of about one-third the sum named. And the Bethlehem stockholder may, in the future, confidently expect large returns from the Pennsylvania purchase.

Bethlehem has successfully weathered its storms. It has reached the crest of the hill, and its future seems assured.



EUGENE G. GRACE

CHAPTER IV

SCHWAB'S THEORIES—THE "BOYS OF BETHLEHEM"—A PEEP INTO THE FUTURE.

CHARLES M. SCHWAB is a man with a theory. He has done much to prove it, but there is one thing that prevents, that disproves it absolutely—and that one thing is Charles M. Schwab.

Briefly, his theory is this: That practically every man, given an equal opportunity, would reach as great success as another, that there are no men of extraordinary ability.

He points to his "boys" to prove his claim, to the young men to whom, when he went down to Bethlehem, he gave the opportunity to show what was in them, and every one of whom has "made good."

But, so far as now appears, there is not another Schwab among them.

The story of Charles M. Schwab's success has been so often told that only a very brief synopsis need be given here. Born in Williamsburg, Pa., on Feb. 18, 1862, Schwab entered the steel trade under Bill Jones, then manager of the Carnegie steel plant, at the age of 18. Within a few years he worked his way upwards, his unusual ability drawing the attention and favor of the former

Steel King to him, and when only 30 years of age was made manager of both the Homestead and Braddock plants of the company.

In this position Carnegie gave him practically a free hand, although the old Scot at times was troubled at the bold steps taken by the younger man in the way of spending money for expansion. Success dogged his footsteps and Carnegie eventually made him president of the Carnegie Company.

At the close of 1900 Schwab, who, both his friends and competitors say, is the greatest salesman that ever lived, put across the biggest sale ever consummated—the sale of the Carnegie properties to Morgan for \$492,000,000. It was Schwab who persuaded Morgan to finance the organization of the monster United States Steel Corporation which purchased the Carnegie Steel Company.

At the age of 39 Schwab found himself president of the largest corporate enterprise the world had ever seen. But the new job was galling to him. He was accustomed to almost absolute freedom of action and he did not long remain president of U. S. Steel. In 1903 he resigned, partly for this reason and partly on account of ill health, and it was not until the following year that the circumstances attending the failure of the United States Shipbuilding Co.,

already related in an earlier chapter, caused him again to enter the steel industry.

The world at large had credited Schwab's success in great part to the undoubted friendship which Andrew Carnegie bore to him. Schwab knew this and, when he took up the reins of management of the newly organized Bethlehem Steel Corporation, he was determined that he would make the company a success by his individual efforts.

For this reason he decided to select for the carrying on of the enterprise only men already with the company; to bring in no new men. He believed that there were quite a number of young men at Bethlehem who, under his leadership, could take charge of the company's operations and make the proposition a paying one—and events proved that he was right.

He selected fifteen of these men, the original "Boys of Bethlehem." Of course his choice was based upon a careful study of the abilities of the human material which the company offered. Only one of the "boys," James H. Ward, came to Bethlehem with him.

Not one of the fifteen has failed to justify Schwab's faith in him. And Schwab, on the other hand, has kept his promise to the fifteen. When he selected them he told them that, if they stuck to Bethlehem Steel, gave to it all their

ability and energy, he would make them all millionaires. I am not sure that every one of the chosen few is now the owner of millions, but several, at least, are, and the rest are well on the way to becoming so.

Of all the "Boys" the one who has risen to greatest prominence in Bethlehem Steel, and in the steel trade, is Eugene G. Grace, now president of the corporation. Grace, incidentally, who was getting a very small salary at the time of Schwab's arrival in Bethlehem, is now many times a millionaire and is credited with having received over one million dollars in salary and bonuses in a single year—1915.

Grace was born in the little town of Goshen, N. J., on August 27, 1876. He entered the service of the Bethlehem Steel Co. after graduating as an electrical engineer from Lehigh University, his first position being a very humble one—that of crane operator. Later he worked his way up to assistant superintendent of the electrical department.

But the actual business of making steel seemed to exert a fascination over the young man and he got himself transferred to the open hearth department, in which department he was working when Schwab made his original purchase of the Bethlehem properties.

At this time Schwab was president of the Steel

Corporation. Grace was now head of the yard department, which he had thoroughly reorganized.

Grace's first meeting with Schwab was on the occasion of the latter's first visit to the plant after the Bethlehem Corporation was organized in 1904. As head of the yard department he had to attend to the switching of the "big boss's" car, and it was while hanging onto the back of the car that he first saw the man who was to exert so powerful an influence on his destiny.

It did not take Schwab long to recognize and appreciate the thoroughness with which Grace had executed the work of the reorganization of his department, and when, shortly after, the company's mines in Cuba proved unnecessarily expensive to operate, Grace was selected to reorganize them. Which he did with entire satisfaction to all concerned.

But his abilities were soon needed nearer home. One of the first acts of the Bethlehem Steel Corporation was to build a big structural mill at Saucon, for making the Grey beam, of which mention has already been made, and Schwab selected Grace for this work. He was put in charge of the erection of this plant, which has been an unqualified success.

In 1909 Grace took still another step upward, becoming general superintendent of the Bethlehem plant. Shortly afterwards he became a di-

rector of the company, then its president, and finally president of the corporation while still under the age of 39.

Says James H. Ward, who went down to Bethlehem with Schwab: "When other men had to refer to records for details of many subjects connected with their work, Grace's storehouse of information was his own head. He knew and had ready at all times the details of every matter connected with his job, and not only that, but of most of the affairs of the company."

As president of Bethlehem Steel Corporation Grace is in practically full charge of all the company's affairs, and it will be part of his work to reorganize and make a profitable enterprise of the Pennsylvania Steel Co., recently purchased by Bethlehem.

For Schwab does not believe in reining in the abilities of anyone. He selects a man for responsibility, places it on his shoulders and then leaves him pretty well to his own devices. "It is better," he says, "for a man to make a mistake now and then. There never was a man that did not. Men learn by their mistakes. And if they are the right kind of men they never repeat one mistake. That is all one can expect."

Incidentally, the "Boys" of Bethlehem are all directors of the Bethlehem Steel Co. They constitute its board of directors. And they are al-

ways in direct personal touch with the affairs of the company. Every day they meet in the big lunch room on the top floor of the Bethlehem Steel office building at South Bethlehem and, after luncheon, over their cigars and coffee, discuss details of the company's business in every particular, from the hiring of a man for a vacant position to the purchase of properties involving millions.

And around this table every man is equal in authority, for each is a director, and no more. Upon leaving it they each assume their respective official positions, but while in friendly contact with it they are all on the same footing and express their opinions with absolute freedom.

One of Grace's chief characteristics is his great power of concentration. When engaged in any work, confronted by any problem, he is able to put from his mind every other thought and engage his entire energies in the job at hand. To this attribute, more than to any other, those who have watched his success attribute it.

"Grace concentrates on everything he does," Schwab told me, "whether work or play. He plays the best game of golf of anyone in the neighborhood—around par—and it is because when he plays golf his every faculty is working on one thing alone, playing the game."

Grace himself dismisses reference to the matter easily. "Any man who wants to succeed in his work has got to concentrate on it—that's all there is to it," he says.

When Grace was appointed president of the Bethlehem Steel Co. his first action was to call together its sales managers and to inform them that he expected the most absolute integrity in all their dealings on behalf of the company. He informed them that Bethlehem Steel would make no contract to which it did not intend to live up to fully, and that any man who made a contract of sale in which he gave evidence of failing to realize this fact by inserting a clause giving the company a loophole to escape from so filling the contract would be given ten minutes' notice. He has never had cause to enforce this threat.

"Grace is a man of the most unswerving integrity," says Schwab. "Some of us at times may not be absolutely exact, but if Grace says a thing it is so; if he promises, his promise will be fulfilled to the letter, and to the spirit." Perhaps Grace's integrity might not be worthy of mention but for this fact: that in answer to a question which I put to every one of his associates that I met, "What is Grace's principal characteristic?" the answer invariably was, "integrity—and after that, concentration."

Besides being an excellent golfer Grace is an



ARCHIBALD JOHNSTON

ardent baseball "fan." I am told that he has at his fingers' ends the names and averages of all the prominent players on the major leagues; that the first part of the morning paper he turns to is the baseball score.

Grace has the reputation of having been born lucky, but those who know him do not attribute his success to luck. In the steel trade the opinion is expressed that but one thing has kept him from being better known to the public—the overshadowing fame of Charles M. Schwab. Yet he is not jealous.

Archibald Johnston is, perhaps, the best known of the Bethlehem "boys." Unlike most of the others he had already attained a position of prominence with the company at the time that Schwab took personal control. For some years he was president of the company, until succeeded by Grace, but his specialty has been and still is the closing of big foreign deals. A man of the world, suave, courteous, but ever keeping an eye out for the nimble contract for steel or anything made of steel that is made at Bethlehem, Johnston is recognized by competitors as a dangerous man to fight against in foreign trade.

John McGregor, possibly, has no actual right to a place among the "boys" as his job is far removed from Bethlehem. McGregor is president of the Union Iron Works of San Francisco, one

of Bethlehem's paying subsidiaries. But nevertheless he is a striking instance of the result of ability and hard work combined with opportunity, as well as of Schwab's seeing eye in selecting his men.

For several years after the organization of the Bethlehem Corporation the Union Iron Works was one of, if not, its most unsatisfactory branches. Every effort to make it pay had proved a failure. One day Schwab suddenly told the fifteen that he had selected a new head for Union.

"We have a young clerk named McGregor in the office," he said. "I have been watching him and I am going to make him president of Union Iron Works." The idea seemed fantastic and Schwab was not unopposed in his selection, but he was determined, and soon after the young clerk found himself pitchforked into a new position of responsibility. Within a year after his arrival at San Francisco Union was paying. Schwab's choice was justified, his almost uncanny power of picking men for the right job—a power exercised by all really great leaders whether in industry or in war—proven.

All of the Bethlehem "boys" avoid the lime-light. They prefer that it be focused on their leader. But of all, there is probably none quite as shrinking as James H. Ward. Ward went to Bethlehem with Schwab as his private secre-

tary, and is still known to the newspaper men of New York, who go to get news from the head of Bethlehem Steel, in that capacity. But Ward is also a vice-president of the company—and Schwab does not promote men for any reason but genuine merit.

C. Austin Buck, vice-president in charge of raw material, is another graduate of Lehigh University who went to work for Schwab as soon as he graduated. Henry S. Snyder, another vice-president, started as a stenographer. Now his special job is to keep tabs on the corporation's shipbuilding plants, and he has at least one stenographer at his call.

W. Frank Roberts, another graduate of Lehigh, started in the boiler room. He is now vice-president in charge of operations. Barry H. Jones, also a Lehigh product, hoped when he was young to make his mark as a mechanical engineer, but he now acts as secretary and treasurer of the corporation, and manages to hold down the job with eminent satisfaction to all concerned.

F. A. Schick, comptroller, was acquired by Bethlehem from another steel plant, but in his ten years or so of service at Bethlehem the others have almost forgotten that he did not start in with them, as they have in the cases of G. H. Blakeley and E. S. Knisely, whose jobs are to sell the steel that the Bethlehem mills make.

J. E. Matthews, manager of the ordnance department, has been kept busy of late closing contracts for munitions for Europe. He is right on the job all the time, and what Schwab himself does not get Matthews brings in to Bethlehem.

W. M. Tobias, who has charge of the purchasing of all supplies for Bethlehem, is another of the "boys," and more recent additions to their ranks are H. E. Lewis, assistant to the president, and R. A. Lewis, superintendent of the Lehigh plant.

Former members of this select coterie of ability and push were A. D. Mixsell, who died in 1915, and J. D. Hagenbuch, who died recently.

The "boys" of Bethlehem, who, of course, are now boys only by courtesy, are every one of them at their desks before eight each morning. Schwab himself, when he is in town, sets the example, and the lazy clerk who wants to roll over for ten minutes more sleep of mornings is discouraged by the knowledge that all the bosses are punching the clock—so he usually decides in favor of rising. He is helped in this decision further by the knowledge that there is always a place around that lunch table at the plant for one more—one who shall have proved his worthiness to sit at the board.

He knows, more, that if he proves his worth, no outsider will be brought in to supplant him,

for Bethlehem's policy still is to recruit its officials from the ranks of its promising juniors.

On the "Boys of Bethlehem" depends the future of the company. And here is something that there seems to be a general misapprehension about: Bethlehem is not a one-man concern. There is a more or less widespread feeling that if the company should lose from any cause the guidance of Charles M. Schwab its greatest asset would be destroyed and its value as an earner of dividends materially lessened. Now Schwab is a valuable asset, beyond peradventure, but he himself indignantly denies that his "boys" are not competent to carry on his work at Bethlehem by themselves.

And having met Grace and the rest I believe that he is right. That is why I am confident in the future of Bethlehem Steel.

