

The Lehigh Register.

ALLENTOWN, PA., WEDNESDAY MORNING, MARCH 10, 1899.

NO. 10

WILLS & IREDELL,
Plain and Fancy Job Printers,
No. 47 EAST HAMILTON STREET,
ALLENTOWN, PA.
ELEGANT PRINTING.
NEW DESIGNS.
LATEST STYLES.
Stamped Checks, Cards, Circulars, Paper Books, Coast-
lines and Blue Laws, School Tablets, and all other
Kilograms, Letter Heads, Bills of Lading, Way
Bills, Tax and Shipping Papers, Posters, etc., etc.,
also, etc., etc., Printed at Short Notice.

ADVERTISING RATES.
Per Square, 1 mo. 1.00, 3 mos. 2.50, 6 mos. 4.00, 1 yr. 6.00.
Per Line, 1 mo. 1.00, 3 mos. 2.50, 6 mos. 4.00, 1 yr. 6.00.
Professional Cards \$1.00 per copy, 25 copies per line for 100.
City Notice, 25 cents per line for 100.
All other advertising matter, 10 cents per line for 100.
Ten lines equal one square.
WILLS & IREDELL, PUBLISHERS.
ALLENTOWN, PA.

Financial.

UNION PACIFIC RAILROAD CO.

CENTRAL PACIFIC R. R. CO.

FIRST MORTGAGE BONDS.

This great enterprise is approaching completion with a rapidity that astonishes the world. Over \$700,000,000 of bonds have been sold by the Government, and the Union Pacific Railroad, beginning at Omaha, building west, and the Central Pacific Railroad, beginning at Sacramento, and building east, until the two roads shall meet. Less than two hundred and fifty miles remain to be built. The greater part of the interest is now secured, and it is reasonably expected that the through connection between San Francisco and New York will be completed by July 1.

As the amount of Government aid given to each is dependent upon the length of road each shall build, both companies are prompted to great efforts to secure the most favorable terms. When completed, will amount to one and one-half grand Railroad Lines connecting the Atlantic and Pacific coasts.

One hundred and two million dollars (\$120,000,000) in money have already been expended by the two powerful companies engaged in this great enterprise, and they will specify complete the portion yet to be built. When the United States Government finds it necessary to secure the construction of the Pacific Railroad, to develop and promote its own interests, it gave the companies authorized to build it such complete aid as is shown by the above figures beyond a doubt. The Government aid may be briefly summed up as follows:

First. The right of way and all necessary timber and stone from public domain.

Second. A land grant of 10,000 acres of land to the mile, which when the road is completed, will amount to twenty-three million (23,000,000) acres, and all of it will be given to the Union Pacific Railroad (\$120,000,000).

Third. It loans the companies fifty million dollars (\$50,000,000), which it makes a second loan.

The Government has already loaned the Union Pacific Railroad twenty-four million and fifty-eight thousand dollars (\$24,580,000), and to the Central Pacific Railroad seventeen million six hundred and forty-eight thousand dollars (\$17,648,000), amounting in all to forty-one million seven hundred and thirty-six thousand eight hundred dollars (\$42,228,800).

The companies are permitted to issue their own First Mortgage Bonds to the same amount as they receive from the United States, and no more. The companies have sold to permanent investors about forty million dollars (\$40,000,000) of their First Mortgage Bonds. The companies have already paid in circulating set exchange not divided, grants from State of California, and Sacramento-San Francisco, upwards of \$20,000,000 in twenty-five million dollars of capital stock.

WHAT IS THERE YET TO BE DONE?

In considering this question it must be remembered that all the remaining iron to finish the road is contracted for, and the largest portion paid for and now delivered on the line of the Union Pacific Railroad and the Central Pacific Railroad, and that the grading is almost finished.

WHAT RESOURCES HAVE THE COMPANIES TO FINISH THE ROAD?

First. They will receive from the Government as the road progresses about \$2,000,000 additional.

Second. They can issue their own First Mortgage Bonds for about \$2,000,000 additional.

Third. The companies now hold almost all the lead they have up to this time received from the Government, upon the completion of the road they will have received in all \$2,000,000, which at \$100 per ton would be worth \$2,000,000.

In addition to the above the net earnings of the roads and additional capital, if necessary, could be called to the aid of the road.

WAY BUSINESS—ACTUAL EARNINGS.

No one has ever expressed a doubt as to the fact that the road is completed through business will be abundantly profitable.

Gross earnings of the Union Pacific Railroad and Central Pacific Railroad for the month ending January 31, 1899, were:

Expenses	\$25,000,000	\$1,700,000 gold
Interest	400,000	
	1,000,000	

Net profit of Central Pacific Railroad, after paying all interest and expense for the month ending January 31, 1899, was \$700,000 gold.

The present gross earnings of the Union and Central Pacific Railroads are \$1,200,000 monthly.

HOW LARGE A BUSINESS IS IT SAFE TO PREDICT FOR THE GREAT PACIFIC RAILROAD?

We would give the following facts derived from Shipping List, Insurance Companies, Railroads and General Information:

Ships going from the Atlantic around Cape Horn, 80,000 tons.

Steamships connecting at Panama with California, 120,000 tons.

Overland Trains, Stage, Horse, etc., etc., 100,000 tons.

Here we have two hundred and thirty thousand tons carried yearly, and experience has shown in the last few years the return passengers from California have been nearly as numerous as those going.

HOW MANY PASSENGERS ARE THERE?

We make the following estimate:

10 Steamships (both ways)	70,000 (actual for 1893)
200 Cattle	4,000 estimated
Overland	100,000

Present prices (averaging half the cost of the steamships) for both passengers and tonnage, gives the following result:

174,000 tons, valued at \$100 per ton	\$17,400,000
400,000 tons, valued at \$100 per ton	\$40,000,000
	\$57,400,000

Based on calculations upon the above figures, without allowing for the large increase of business, which can safely be looked for, then estimates the running expense of one half-way for the Union Pacific Railroad, would be an annual income of \$10,000,000; which, after paying the interest on the First Mortgage Bonds and the advances made by the Government, would leave a net annual income of \$1,000,000 over and above all expenses and interest.

The First Mortgage Bonds of the Union Pacific Railroad Company and the First Mortgage Bonds of the Central Pacific Railroad Company are sold, principal and interest, payable in gold coins; they pay six per cent. interest in gold coin, and run for thirty years; they can be sold before that time without the consent of the holder.

First Mortgage Gold Bonds of the Union Pacific Railroad for sale at par and accrued interest, and First Mortgage Gold Bonds of the Central Pacific Railroad at 108 and accrued interest.

DE HAVEN & BRO.,
DEALERS IN GOVERNMENT SECURITIES, GOLD, ETC.
NO. 40 S. THIRD ST.,
PHILADELPHIA. Jan 27

THE PHANTOM OF DEADMOOR TOWER.

At six o'clock one fine autumn morning, Seymour and I stood on the deck of a London steamer, which was easing, and stopping, and turning, and going on, in her endeavors to lay herself alongside the quay of a foreign town, without smashing any of the smaller vessels which were in her way.

The steamer had been very prosperous, the weather fine and warm, the sea as smooth as glass, the passengers few and rather amusing. And the old town looked charming; quite a fairy city—all cathedral, palace, and grand square, without black-slums, dirt, vice, or crime, fit to be photographed as a model for seaport towns. Our luggage was crowded, loaded, put on a truck, and wheeled off to the hotel fixed upon, we following on foot at our leisure.

"Let us turn into the Place, and have a nearer look at the cathedral," proposed Seymour. "Every scrap of tracery looks as sharp and clear, in this early morning air, as if it were under a microscope. Hullo! what's that?"

"That" was a hum and tramping, distant at first, then louder and nearer. When we entered the Place, we found numerous groups scattered about; fresh-comers were perpetually arriving from all the streets which converged upon that large open space, and presently the head of the large crowd, whose march we had heard in the distance, debouched upon the scene.

In the center of the square, a scaffold had been erected, around which all these people were gathered. Seymour, a good German scholar, made inquiries. Yes, there was to be an execution. A man, supposed to be an Englishman, had committed a very horrible murder, attended by circumstances of revolting treachery and ingratitude, and his head was to be cut off in an hour at farthest.

Now, I certainly should never have gone out of my way to see such a sight; but being there, a sort of fascination bound me to the spot. As for Seymour, he was glad of the opportunity of seeing any foreign customs; and since he had served in the cavalry during a bloody Indian campaign, it was beyond the power of a headman to spoil his breakfast.

Now, if the fellow looked as farthest, I thought, fine gentlemen you meet in Pall Mall, and think of the man, who had seen and done, and suffered things which could not be read of by many of their critics without a shudder.

There were immense numbers of people present, but no crowd in the English sense of the word; for the open space was very extensive, and the stage on which the tragedy was to be performed was visible from every part of it, so that there was no reason why the spectators should jam themselves together; and as they were free from that propensity to push to the front which animates all ranks and both sexes of the British, there was plenty of elbow-room, and a sensitive lady might even have fainted without being trodden to death in consequence.

You will have an opportunity of seeing with what force the blood is always pumping through our arteries," said Seymour. "Barbarous" was not a bit. Far more humane than hanging, I take it. Curious, though, that they have not introduced the guillotine into this country; perhaps, because it is French."

"I see no block."

"They do not use one. The culprit sits in that chair, the executioner snicks his head off with his sword as you would a thistle with your cane. But here they come."

It was with a sickening feeling that I watched the executioner, the priest, and the murderer step to the scaffold. The last was a middle-aged man of light, agile form, and delicate features, relieved by black Indian, and moustache. He was in his shirt, which was open at the neck and turned back, and his arms were bound. To the lordship which supports many a miscreant in his last hour, and enables him to "die game," he could lay no claim, for his face was blanched with terror, he trembled in every limb, and was evidently nearly fainting.

The mental agony of the poor wretch added so much more to the horror of the scene, that I could hear it no longer, and I was turning to go, when an exclamation from my companion stopped me. Seymour was habitually so quiet, indifferent, and almost sleepily in his tone, that anything like energetic speech from his mouth was perfectly startling. I had known him from a boy, and never remembered his being excited before, so that I had come to look upon him as a well-dressed but unexcitable, and half-doubtful at the moment whether the very of surprise could possibly have come out of his mouth. One glance at his face assured me of that, however, he was leaning forward and gazing at the scaffold with parted lips and straining eyes.

"Lend me your glass," he cried; and after looking through it, he said: "Yes, I had seen that before; no doubt about that. But there is one thing that I want to make out, and can't. Here; your eyes are better than mine; take the glass, and examine his face, it is turned this way now. Well, do you see any mark upon it?"

"No. Yes, I do; there is a broad scar on his cheek."

"Which cheek?" cried Seymour, grasping my arm so hard that it hurt me.

"The left," I replied.

"Then, by heavens, I guessed right!" exclaimed Seymour, drawing a long breath.

At another time, curiosity would have dictated a question, but that moment when his hand began to beat the eyes of his victim, and his face to assume a look of agony, I could not now help watching him. The business was nearly done; one sweep of the large sword, and the plotting brain was separated from the body, and fell.

We walked to the hotel, which was close by; and after a bath and a change, I found that the scene I had witnessed had made less impression upon me than I anticipated, and I was quite ready for a good breakfast.

When the meal was over, and we were lying in chairs in the pleasant courtyard, I remarked on the singularity of Seymour's conduct on that particular morning in time to assist at the decapitation of an old acquaintance.

"Yes," he replied, "in his ordinary tone now, 'most extraordinary thing that ever occurred,' the beggar had a try at my life once and I gave him that scar."

"Was it in India?"

"No; in Yorkshire, or Lancashire; I'm not certain which. One August, some two years ago, when I was in the cavalry, I got two months' leave of absence, and although I should have some shooting. So I looked over the advertisements in *Bell's*, and pitched upon one inserted by Mr. Bantyn, who intimated that he was ready to provide board, lodging, and grouse-shooting, for a certain sum on the Yorkshire moors.

"I wrote, agreeing to his terms, on the sole condition that the game proved to be as plentiful as he represented; and received direct

HOW THE FLORIDA KEYS WERE FORMED.

BY MRS. E. C. AGASSIZ

Just outside the lower extremity of Florida are a number of islands—the easternmost almost touching the main land, while the western are a little further off.

In consequence of this peculiarity in their disposition, the highest of these islands and the Florida coast, marked on the map as mud flats, is broad and open at the western end, but almost closed towards the east. It is important to remember the form of this broad intervening space, stretching between the keys and the main land, because the narrower and more shallow and may easily be filled up with sand, mud, &c. If you will look at the map, you will see, by the flats at the eastern end of the *6000* open channel, that such a process is actually going on. In fact, a current sets towards the channel, drifting into it sand, mud, and debris of all sorts.

I hope to show you that these flats, being gradually consolidated into dry land, will at last make a bridge between the islands and the lower extremity of Florida, uniting them so that the islands will become part of the main land.

Indeed we shall find that Florida herself, so far as her structure is known, is only a succession of such rows of islands as now lie outside her southern shore, united together, by flats exactly like those accumulating at this moment between the present islands and the coast. These islands are all called the Keys of Florida, and are distinguished from one another by a variety of appellations, such as Sand Key, Key West, Indian Key, Long Key, and the like. They are of various sizes; some—like Key West, for instance—are large and fertile islands, planted with fruit and flowers, and where the people live in great luxuriance, while others are mere barren rocks scarcely rising above the surface of the ocean, washed over by the waves, and wholly destitute of verdure.

Suppose now that in fancy we sail out from the keys on their seaward side, choosing a bright, calm day, when the surface of the ocean is still. The waters of that region are always remarkably clear; and under such influences of sky and atmosphere they are so transparent that the bottom may be seen to a considerable depth, distinct as a picture under glass.

Sailing southward to a distance of some four or five miles from the keys, we find ourselves in the neighborhood of a rocky wall rising from the ocean bottom. As we approach it, if we look over the side of the boat, we shall see that we are passing over a bed of coral, a branching coral, and finally a very considerable depth, distinct as a picture under glass.

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AGRICULTURAL.

THOROUGH DRAINING AND DEEP CULTURE THE BASIS OF IMPROVEMENT IN AGRICULTURE.

The fact is patent to the most superficial observation, that the total sum of the vast production of our agriculture is the yield of an average depth of cultivation of the soil not exceeding six inches—comparatively a mere film of the earth's surface. All the inorganic matter needed by plants, and all other elements of their nutrition and full development that come from the earth, must be supplied within this limit, while all the soil below this depth is unemployed and inert. The roots of the grain and grasses do not ordinarily extend much below the depth cultivated; and the average of this in our country is insufficient either for protection against drought, for adequate returns for the labor of cultivation, or for full supplies of farm products for national consumption. We may not be able to calculate the precise amount of increase in the production due to an additional inch in depth of cultivation, but experiments have shown that many soils it bears, relatively, a near proportion to the increase in depth of culture, an inch greater depth of cultivation would give nearly one-sixth more production. The agricultural produce of 1867, of those articles which would be influenced by depth of cultivation, has a total value of at least \$1,600,000,000. Now, an increase of even one-tenth of this amount by an additional inch of culture, would add \$150,000,000 to the value of the annual production of the country.

An erroneous impression exists relative to the depth to which the roots of the cereals and clover, as well as many other plants, will descend in an aerated and healthy soil. It is a mistake to have been filled with surface soil, or where the mould is of suitable texture and condition, carrots and parsnips are often found of a length of three feet or more; clover roots from three to four feet, and instances have been given of still greater length of the roots of wheat and oats. With the prevalent mode of culture, in very compact soils, where roots are so very near the surface as to be thrown out by the mechanical displacement of freezing and thawing, and, if not utterly destroyed, they struggle fruitlessly to pierce the unbroken subsoil, perhaps, by the aid of roots from three to four feet, and instances have been given of still greater length of the roots of wheat and oats. With the prevalent mode of culture, in very compact soils, where roots are so very near the surface as to be thrown out by the mechanical displacement of freezing and thawing, and, if not utterly destroyed, they struggle fruitlessly to pierce the unbroken subsoil, perhaps, by the aid of roots from three to four feet, and instances have been given of still greater length of the roots of wheat and oats.

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