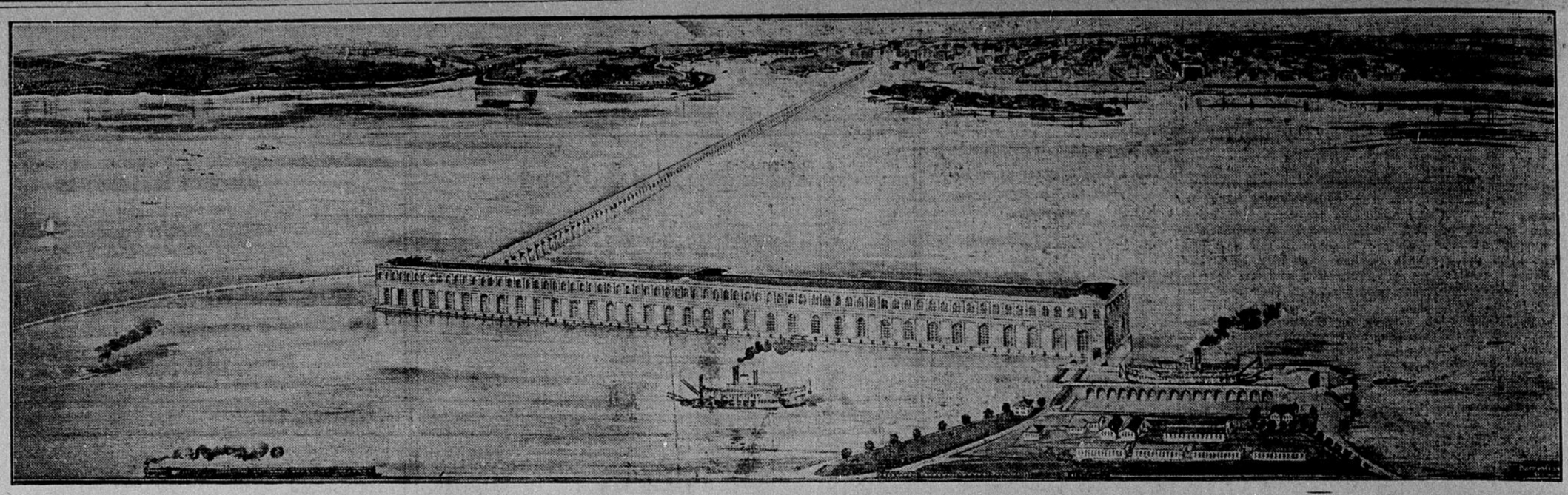


The great completed dam with the power house and new lock are shown in this picture which was taken from the Iowa shore, and is the first of its kind ever printed. It gives a good idea of the immensity of the enterprise. The lock was thrown open to navigation in June, and a boat is shown being locked through, while a second has already passed through and is speeding on northward through Lake Cooper. The power house is a mammoth building which contains hundreds of thousands of dollars worth of the latest electrical machinery used in the development of power. This entire water power development plant cost $25,000,000 and is now furnishing power at various points, including St. Louis, Mo. Construction work was begun in January, 1910, and continued until July of the present year. At times as many as 3,000 men were employed. The hydro-electric plant as it stands today is the largest in the world and promises to be a potent factor in changing the industrial map of the United States, turning a rich agricultural valley in a great manufacturing center.

Shifting Country's Industrial Center

Keokuk Dam Will Benefit Half a Nation

How $25,000,000 Hydro-Electric Plant at the Foot of the Des Moines Rapids Will Change the Fertile Mississippi Valley Into A Great Manufacturing District, by the Development of Cheap Electric Power.

The city of Keokuk, the states of Iowa, Illinois and Missouri, the Mississippi valley and the entire United States will be directly and indirectly benefited by the building of the $25,000,000 water power plant at the foot of the Des Moines rapids, which is now furnishing power to points 150 miles away. The story of the effects of this wonderful piece of work—one teeming with commercial activity in a pen picture of the changes which the consumption of this power will bring about.

When one grasps the economic values in this water power building at Keokuk, at the converging point of the three states, in the very heart of the rich Mississippi valley, and very near the geographical center of the United States, one realizes that the manufacturing center of the country will be shifted by the new industrial factor now formed in the middle west. The assets of the commonwealth adjacent to the great dam will be appreciably increased. How much of this benefit comes to the various localities depends largely upon what the people do to conserve their own interests, and how progressive they are to take advantage of the opportunities offered.

Keokuk's Prominent Advantage.

As to what sort of manufacturing can profitably be done near this largest of electrical installations few problems are presented. Proximity of nearly all raw materials, easy and cheap and adequate transportation, and the location in the center of the Mississippi valley market with a watter route to the ocean—these essentials are attractive to almost all forms of manufacturing.

While the country as a whole will gain by the work, it is only proper to emphasize the importance of being located near the distributing point of the power, and great benefit will be felt in Keokuk and the nearby territory.

A Product of the People.

Unlike most undertakings of the kind in which the ultimate object is commercial gain, the building of the greatest water power in the world here at Keokuk was promoted by Keokuk people and then capitalized by the builders, rather than promoted by the builders or captured by capital.

This is one of the distinct features of the early history of the great enterprise which is now completed after three years of actual construction work. From the very first, the talk about a dam at the foot of the rapids was done by Keokuk people. They were responsible in a way for most of the early surveys and for the necessary legislation to make the project legally possible. They laid the foundation for Hugh L. Cooper and never stood in his way, but gave him all the assistance possible. The result is that although money has been secured from all parts of the world, the dam is thoroughly a distinctive Keokuk undertaking, almost as much so as if Keokuk people had built it.

To go into detail historically of the early efforts of Keokuk people to bring about the consummation of this $25,000,000 enterprise would be to write a story too long for these columns, but it is sufficient to say that many of the loyal citizens spent many days a year for many years striving to interest some big engineer and the necessary capital.

Dream Has Come True.

Today the dream is realized. Keokuk has its water power, and now the question is, how is it going to effect the city?

In treating of the effects upon Keokuk it is not necessary to start with the completion of the dam, but it is possible to go back to more than two years ago when the work was begun. With the invasion of workmen—sometimes over 3,000 were employed—and other conditions that attended the work, business in Keokuk took a great spurt and for two years all kinds of business enjoyed the greatest prosperity of a half century. Houses which for years had remained idle were rented; restaurant sprung up to feed the newcomers; theatres were patronized as never before; broken down business took on new life. These were a few of the temporary things noticed that were tangible enough to benefit the city. But they merely went hand in hand with the building of such a great project, and now Keokuk has something really big to look forward to.

A Regular Santa Claus.

The dam has given to Keokuk a beautiful engineering work that has already attracted and will attract people from all over the world; it has given a beautiful lake for over fifty miles on the Mississippi which promises to be a great future drawing card; it has given deep water for sixty-five miles along the river; it was given a lock that is the greatest in the country.

Now as to the future. The really big thing is the industrial outlook. The dam means that 200,000 horsepower of the cheapest kind has been thrown upon the market right at Keokuk for consumption by factories and other power using agencies. Factories are bound to come and the industrial awakening in Keokuk will be tremendous.

The great water power development means a new industrial era for Keokuk; it means the changing of a city, which had barely existed in a commercial way, with its limited amoust of business, to a city of nervous energy, with its wonderful possibilities if the people are awake to the great and numerous advantages and possibilities.

Great Benefit to Three States.

The power distributing plant, being at the converging point of Iowa, Illinois and Missouri, will be a potent factor in shaping the destinies of these three states industrially.

Iowa, which for years has retained a proud supremacy in agriculture, is now given great possibilities from the production of its factories by reason of the cheap electric power that can be furnished to cities in the state. The power now turned out is more than sufficient to run all the factories operated in Iowa. And yet the factories of the state are turning out products each year worth 83 1-3 per cent of the value of the farm products.

The Iowa State Manufacturers' Association, seeing the possibilities for new Iowa factories, has long shown a great interest in the work. The same feeling has existed all over the state, especially in the southern part.

What Missouri Receives.

Missouri, to which the longest transmission line runs, is now receiving 60,000 horse power, or nearly one-third of that which is marketed. This is delivered to St. Louis. Along the line it will be easy for cities to tap the transmission line and get power to run their factories.

Along the Mississippi river bewteen Keokuk and St. Louis a big industrial field should spring up. The sand in the concrete of the big work came from Missouri and much of the cement. The industrial sections being prepared for new Keokuk is along the Des Moines river and will extend across the Iowa state line into Missouri.

The great increase in population around the world's greatest water power will make greatly increased values for means of sustenance and farm lands throughout northeast Missouri, but the increased values on account of the power and manufacturing center will extend all over Missouri and beyond its borders.

Illinois Has Advantage.

Illinois, through the activity of Hamilton, situated at the east end of the dam, has been closely associated with the building of a dam for a half century. The prominent and wealthy citizens of Hamilton spent much time and money working hand in hand with Keokuk people to bring about the project as it now stands completed today.

Like Keokuk, Hamilton has profited during the building of the dam, and now has a rosy future—a future that should mean wealth for its citizens and a big growth for the town.

The western part of Illinois is well situated for receiving cheap power from the hydro-electric plant. There is a transmission line south and this will be used to feed the surrounding territory. There are many small towns in western Illinois which should be able to make something big out of the power and great activities are expected during the next few years.

The three states of Iowa, Illinois and Missouri, because of their advantageous location around the power plant, will consume the power furnished. Being the great agricultural states of the union, and with immense possibilities from the use of cheap power for manufacturing purposes, it is a big task to predict what the wealth of these states will be in the next few years.

Possibilities for the Valley.

Turning loose 200,000 horse-power of cheap electric current in one of the richest valleys of the country—the Mississippi valley—gives rise to tremendous possibilities.

The Mississippi valley is not only the richest in the country but one of the richest in the world. Its great resources are to be found in its corn, wheat, grain, lumber, minerals, hides, rice, cotton and many other products of the soil.

Instead of always remaining an agricultural center, the electric power furnished by Keokuk will enable this territory to change into a manufacturing center; but in doing so its great agricultural wealth will not be diminished in the least. The big Keokuk water power has simply given to the Mississippi valley another big asset; one that is the equal of any single asset it now has.

United States will Feel Effects.

Even the United States will feel the far reaching influence of the great Keokuk power plant. When the territory contiguous to the water power builds up, it will mean the bringing of industries from all over the country. With these industries will come people, and the center of population of the country will be more quickly drawn west, as the movement has been for years past. It will mean the springing up of a new industrial center in the United States.

The United States government has derived a great profit from the dam, and it is conservatively estimated that the benefit is worth $10,000,000 in real money.

The power company has given to

(Continued on page 5.)

Story of Forty Year Struggle

How Keokuk People Dreamed of Damming the Mississippi River and Saw That Dream Realized Only When Hugh L. Cooper Came Along and Spent His Private Fortune.

The physical construction of this water-power plant in about two and a half years shrinks, as an achievement, when compared with the forty years of constant endeavor and forty months of strenuous toil behind the engineering blue prints.

From that era of belligerent Indians roaming over this part of the country until the first decade of the twentieth century was almost ended, the people of Keokuk never ceased to dream and plan and work for the development of this water power. As a matter of cold fact, this was practically impossible until the era of the revival of concrete in America, and commercially impossible until engineering science applied to hydraulics had increased the efficiency of the turbine and electrical science applied to the dynamo and insulators had increased the efficiency of the generator and increased the radius of transmission of electric current.

The People were Stickers.

But the people kept eternally at it. They dreamed and talked and planned. Various promoters appeared, raised drooping hopes and disappeared.

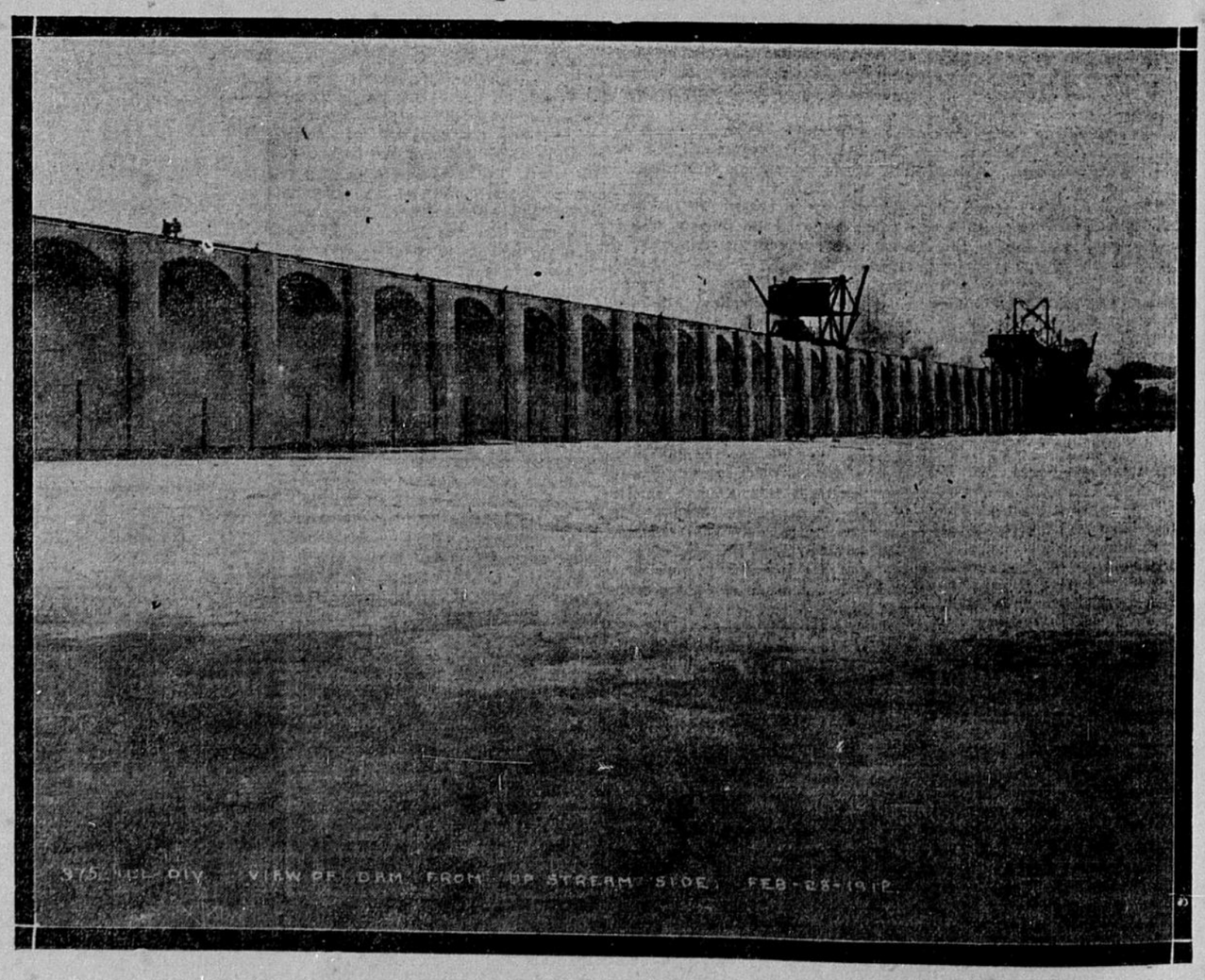
Finally, prominent citizens of Keokuk and Hamilton organized a corporation to obtain the rights needed, promote the project and secure the engineer and money to execute the enterprise. The city councils of Kokuk and Hamilton appropriated public money, by unanimous consent of the citizens, to this promoting corporation; and every cent of it later was paid back into the city treasuries. The legislatures of Iowa, Illinois and Missouri helped. Congress ordered a thorough investigation to safeguard the rights of the public; the commission went into every phase of it, found no opposers to it, and approved it under proper regulations. Congress passed the franchise act to the people's promoting company early in 1905, after various committee hearings; the act provided that every detail should be approved by the war department, which meant that the company should provide free lock, dry dock, motive power for them perpetually, and deep water navigation for many miles up the river aside from supervision of the construction work.

Chance Coming of Cooper.

Hugh L. Cooper, noted hydraulic engineer was just finishing the largest power plant at Niagara Falls when the Keokuk and Hamilton people were getting their legislation through congress. Beginning in Jamaica and working throuh Mexico and Brazil Mr. Cooper had been building water power developments of constantly increasing size until the maximum seemed to have been reached in the last plant at Niagara. But just then there fell into his hands an advertisement an inch long issued by the Keokuk and Hamilton Water-Power company in 1905, showing by far the largest job of developing water-power ever taken seriously up to that time.

Mr. Cooper came west, examined the project, became interested in it, undertook to build it, and finally harnessed the Mississippi at the foot of the Des Moines rapids.

(Continued on page 5.)



This is a view of the great Mississippi river dam from the up stream side. The illustration shows the dam wall and the piers, of which there are 119, locked deep in the bed-rock bottom of the mighty Mississippi to stand for ages. This wall was built from the Illinois division of the works and to do this building it was necessary to coffer-dam the river. On top of the wall are shown two traveling cranes which were used to drop hundreds of yards of concrete into the wooden forms. Between the spans of the dam have been built spillways over which the water rushes