

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD’S FORD PLANT COMPLEX

*[Compiled and Transcribed by William John Cummings]*

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## FORD ACQUISITION OF LAND IN THE UPPER PENINSULA

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*Iron Mountain Press, Iron Mountain, Dickinson County, Michigan, Volume 25, Number 6 [Thursday, June 24, 1920], page 7, columns 1-2*

### FORD’S LAND DEAL

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#### Now in Possession of Michigan Land and Iron Co. Holdings.

The Michigan Land & Iron company, the possession of which has recently passed to the Henry Ford automobile interests, is a large tract located in the upper peninsula of Michigan, the total acreage aggregating nearly 430,000, of which about 320,000 acres is in fee simple, the balance being the mineral right only. The estate was the unsold portion of the land grant received by the Marquette, Houghton & Ontonagon Railroad company from the state of Michigan. The sale of the lands by the railway company to the Michigan Land & Iron company took place about 1880, and the principal purchaser was Sir Thomas Brassey, of England, afterward Lord Brassey, who died about three years ago. His son was killed by a taxi in London last November. He left no children, and evidently the estate had to be divided. Mr. Horatio Seymour, of Utica, N.Y., was appointed agent for the company and came to live in Marquette in the fall of 1881. After 1901 J.M. Longyear bought an interest in the company and became agent.

As stated in Iron Ore of last week, the mineral developments on these lands has been slight, only two mines having been worked, with those now idle, and an option for a lease has been given to the Oliver Iron Mining company on a description in Alpha, Menominee range. The company, so far as we [are] aware, has not attempted to explore any of its mineral tracts, but has left this to those who might care to try on royalty basis. It may be that the Ford interests will inaugurate a plan for the examination of such lands as are located favorably for minerals, being in the market for ores for their furnaces. That some of the locations have a chance for iron ore is certain. The Imperial was worked many years and still has an ore deposit that can be attacked at any time. The ore is limonite, low in iron and high in phosphorus, and was used as a mix for certain brands of iron for which there was a market. Such ores are standard in the south and will have still greater value when the cream of the ores of the country have been skimmed, a process now well along. The Bessie mine, also located on the Marquette range, has an ore somewhat similar to that of the Imperial. There is a chance that somewhere in those locations ores of better grade may be found.

The lands of the company have a large timber value as well as agricultural and can be made still more valuable if certain water powers now obtainable are taken in connection with them. This ought to be done to round out the deal completely. With the extensive water frontage that has been obtained at several points on Lake Superior these lands will afford the basis for enterprises that their timber and soils will permit, these being valuable. The people of the upper peninsula will profit to the maximum if the timber is wrought into commercial shapes near where it is cut.

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Naturally, all kinds of rumors have spread concerning the probably *[sic – probable]* treatment of the lands of the company under the Ford management, and it is quite certain that Mr. Ford, in making the purchase<sup>[,]</sup> intended to get fair returns for the considerable capital here invested. Such timber as is now to be found in this peninsula is rare, as here are the very finest tracts of maple and birch to be found on the American continent, a wonderful wealth that we ought to appreciate and protect to the very best of our ability. We ought to take every precaution against the spread of fires through it and preserve to our people these forests that will become more valuable with each succeeding year. We need a much more vigorous inspection of the woods and a better clearing of the waste that now offers encouragement for conflagrations. The people ought *[sic – ought]* to be taught the importance of greater care in their treatment of the camp fires and in discarding lighted matches and cigarettes. The schools, the Boy Scouts, the vshermen *[sic – fishermen]* and picnickers *[sic – picnickers]* ought to all *[sic – all ought to]* be impressed with the great damage a little carelessness may create.

Henry Ford can do a good work in cleaning many places in his holdings where the lumbermen have left kindling for future fires, which will protect his own lands and those of his neighbors as well, which will be the very best kind of insurance he can secure.

In the list of lands the Ford interests have bought are several very fine locations for summer campers, ideal places along the shores of inland lakes and that are to grow very valuable in the years to come, and that will be wanted by the people appreciating such attractive places when these are located in such a climate as ours. Mr. Ford has bargained well. – Iron Ore.

*Iron Mountain Press, Iron Mountain, Dickinson County, Michigan, Volume 25, Number 8 [Thursday, July 8, 1920], page 1, column 5*

## BIG FORD FACTORY

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### Location of Immense Plant in Iron Mountain Hanging in Balance.

A crisis has been reached in the history of Iron Mountain and citizens should immediately council relative to conditions that confront them.

The Ford Motor company is desirous of locating a factory in Iron Mountain that will employ more than 2,000 men. Some idea of the size of the proposed plant may be gained from the fact that the main building will be 4200 feet long and 1600 *[feet]* wide.

In the interest of the Ford Motor company, some of our citizens have secured options on about nine hundred acres of land south of the city limits extending to the Menominee river. The average price to be paid for this land is less than \$100 per acre. It is necessary to include the Mongrain farm of 160 acres in the proposed factory site. Thus far Mr. Mongrain has demanded a most unreasonable price for his farm. Unless this demand is reduced most materially Iron Mountain will lose this opportunity of securing this huge enterprise.

Mr. Ford and his son, Edsell *[sic – Edsel]*, and C.W. Avery, general manager of the Ford Motor company, were in the city for a few hours yesterday, coming here to inspect the proposed site. He stated that the Ford Motor company was *[not]* seeking faveors *[sic – favors]* from the people of Iron Mountain in the way of a free site. All

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that was necessary was to place a reasonable price upon their property and the factory would come to Iron Mountain. Otherwise he would seek another location, and Mr. Ford let it be known that he had two other upper peninsula towns under consideration – towns in which he could secure the desired lands at a very low price.

A factory employing 2,000 men would add 10,000 to the population of Iron Mountain.

The Ford Motor company has recently purchased several hundred thousand acres of land in the upper peninsula. The proposed factory would be equipped for the purpose of manufacturing the wooden parts which the company needs in its extensive business. The plant would include a large saw-mill [*sic – sawmill*].

This immense plant can be secured for Iron Mountain, but no time should be lost in meeting a condition that may result in this factory going elsewhere.

*Iron Mountain Press, Iron Mountain, Dickinson County, Michigan, Volume 25, Number 11 [Thursday, July 29, 1920], page 1, columns 1-2*

## FORD INDUSTRIES

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### **Will Be Located South of City on the Mongrain and Schintgen Farms.**

It has been definitely decided to locate the several mills and factories of the Ford Motor company on the Mongrain and Schintgen farms, just east of Carpenter avenue and about a mile south of the city limits. The engineers of the company are now engaged in making the surveys for the

several buildings preparatory to the starting of work on the foundations. During the week considerable building materials have arrived here for the company. The consignment included concrete mixing machinery and a dozen or more carloads of cement.

The work of building the spur track to the site was commenced last Tuesday. The switch connection was made by a crew of men employed by the St. Paul road under the supervision of Roadmaster Dunn. John Marsch has the contract to build the spur track and will do considerable other work for the Ford company. One of his grading outfits and two carload [*sic – carloads*] of horses and mules arrived here last Monday. Nicholas Nerenhausen will have charge of the work with Fred Brasky as cashier and both gentlemen are in the city.

The Ford Motor company has purchased from Mrs. [*word missing here*] Trenary for the residence property on the south side of East Brown street, in the rear of the Carbis meat market, and will erect thereon an office building. The building will be thirty-five by sixty-five feet on the foundations and two stories in height. Architect Parmelee is now engaged in drafting the plans for the building.

A gentleman who is in a position to know not a little about the plans of the Ford Motor company makes the prediction that, ultimately, the corporation will occupy the entire 3,000 acres of land that has been purchased and will employ several times 2,000 men. In the opinion of this gentleman the Ford company will manufacture all the parts of the Ford car, including the sheet steel, in Iron Mountain, except the motor. It is also predicted that the company includes in its general scheme additional sawmills. As this gentleman tells us, if the mills are located in Iron Mountain there will be no

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“log waste,” as would be the case if the mills were located in the timber belts. All the slabs could be utilized, even to the smallest fragment, for fuel purposes.

It is safe to say, too, that the Ford Motor company at no distant day will explore the lands recently purchased for iron ore, and in the opinion of geologists a number of mines will be developed. This will lead to the erection of furnaces and sheet mills, and as it has been the policy of the Ford company to concentrate its activities, it naturally follows that Iron Mountain is the logical site for them.

The Ford Motor company owns – or will own when the Iron Mountain plant is in operation – all the raw materials entering into the construction of Ford cars except iron ore. Large fields of Kentucky coal were recently purchased by the Fords and they have also purchased a railroad over 440 miles long – extending from Detroit through the coal districts of Ohio, West Virginia and Kentucky, thus insuring them an everlasting supply of high grade fuel. When all the interests are connected up, the Ford Motor company will be dependent upon no interest for raw materials.

The coming of the Ford Motor company, with its large land requirements, has interfered temporarily with the plans of the Iron *[Mountain]* Furnace & Chemical company and may regard the erection work. This plant was to have been erected on the lands which M.J. Fox purchased several months ago from the late H.M. Pelham and Mrs. A.C. Cook, located in the Crystal Lake district. These lands were needed to round out the Ford holdings and they were sold to the company with a guarantee that the Furnace & Chemical company would be provided with an equally as good a site by the Ford Motor company. A site will be selected in the near future. It can be said that the erection of the furnace

and chemical plant is absolutely certain. The enterprise has been completely financed. A large block of stock has been taken by a company engaged in the furnace and chemical business and several large lumbering concerns are also heavily interested. This latter connection insures a supply of charcoal wood for many years to come.

It can be said, too, that John T. Spencer and associates have by no means abandoned their furnace plans and are more confident of success today than ever before. The Press hopes that Mr. Spencer and his associates will have every success in floating their enterprise. Iron Mountain cannot have too many furnaces. Mr. Spencer has won success in other undertakes *[sic – undertakings]*, almost single-handed, where complete failure was predicted by many.

*Iron Mountain Press, Iron Mountain, Dickinson County, Michigan, Volume 25, Number 11 [Thursday, July 29, 1920], page 1, column 2*

## **Word of Warning.**

There is a disposition on the part of some owners to advance city real property beyond reasonable values. This, we are sure, is a mistake, and can only result in retarding the growth and improvement of the business district as now located. It may result in the business district shifting to another part of the city – to Carpenter and River avenues – in the general direction of the Ford plants. As the Mining Journal has told us, we should “keep our feet on the ground.” The advice is good. There is considerable demand for business and residence property, but due to the high prices demanded, there have been only a few transfers. Rumors of all kinds are flying

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relative to the incoming of new industries, but an investigation establishes that they have no foundation in fact. It is certain, however, that other industries will follow the lead of the Ford company and locate here, provided real property owners show a disposition to sell the sites wanted at a fair values [*sic – value*]. Inflated values are a bad thing for a city on the verge of industrial progress.

*The Iron Mountain News*, Iron Mountain, Dickinson County, Michigan, Volume 4, Number 264 [Friday, February 20, 1925], page 1, column 7

## FORD SEEKING NEW SAWMILL?

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### Negotiations Include Purchase of Rail Line From Channing

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(Special to The News)

MARINETTE, Wis. – Purchase of the Wells, Mich., property of the I. Stephenson company trustees and of the Escanaba & Lake Superior railroad is contemplated by the Ford Motor Co. which is seeking to extend its operations in Upper Michigan. That Ford has obtained an option on the property has been made known by reliable authority. A saw and planing [*sic – planing*] mill are included in the Wells holdings.

The railroad was built by the lumber concern when it first started timber operations in that region from Channing to Wells. It has several short spur lines branching out at various points along the main right-of-way.

Ore trains of the Chicago, Milwaukee and St. Paul railroad are now run over this line to the St. Paul dock near Wells. Representatives of the automobile manufacturer have been looking over the property the last few days. Acquisition of it would mean that Ford would have a means of ready transportation by rail and water. The construction of blast furnaces in the Wells vicinity is also a probability, it is stated.

Several months ago, it is reported, Ford was negotiating for the purchase of the Cleveland-Cliffs Iron company furnace at Kipling, which is only six miles from Wells.

This company also operates a blast furnace at Wells. Residents of Escanaba, Gladstone, Wells, and vicinity have been quite excited during the past few years since Ford entered Iron Mountain as they have anticipated a similar boom in their own district.

Ford officials, [*sic*] said to be conducting the negotiations include E. G. Kingsford, of Iron Mountain.

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## FORD POWER HOUSE AND SAWMILL Ford Plant Kingsford

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*Iron Mountain Press*, Iron Mountain, Dickinson County, Michigan, Volume 25, Number 12 [Thursday, August 5, 1920], page 1, columns 5-6

## CONCRETE POURED

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## Construction Work on Ford Saw-Mill and Power-House Under Way.

Tuesday, August 3rd, 1920 – First building construction work on the Iron Mountain plant of the Ford Motor company.

The foundations are now being constructed for the mammoth saw-mill [*sic – sawmill*] and equally mammoth power house. Work on these buildings will be rushed forward as rapidly as men can do the work. The walls above ground will be constructed of stucco on steel frames. The supporting columns will be of concrete steel re-enforced. The saw-mill [*sic – sawmill*] will be unique in saw-mill [*sic – sawmill*] construction as now view [*sic – viewed*] and it will include every labor-saving device now known to the industry and many new ones. The sawing equipment includes two band saws, a gang saw and re-saw. The size of the mill on the foundations is 200 feet in length and 125 feet in width. The cost of the mill has been estimated at \$250,000. Work has also been started on the power-house [*sic – powerhouse*]. This building is 250 feet long and 40 feet wide and it will house one of the geatest [*sic – greatest*] batteries of boilers in the west. The plants will furnish all the power for the mill and the several factories.

John Marsch, who has the contract for building the spur track from the St. Paul road to the factory, is employing about one hundred men in the work. Grading is in progress on both sides of Carpenter avenue. A cut of about seven or eight feet is encountered in crossing the Robbins fam [*sic – farm*], but west of Carpenter the grading is comparatively easy. The St. Paul road will build the bridge across the Crystal Lake outlet and the timbers are enroute [*sic – en route*]. The ties and rails are also in the St. Paul yards.

The Press can state that the Ford Motor company has no intention of building a new town on the lands recently purchased. It is the desire of the Ford Motor company, we are informed, to have their factories and holdings incorporated within the limits of the City of Iron Mountain. The company will not engage in the mercantile or any other business other than that appertaining to the manufacture of Ford car parts.

It is the intention of the Ford company to beautify the district immediately surrounding Crystal Lake, making it a playground for their employes [*sic – employees*] and citizens in general. The scheme includes a well constructed boulevard around the lake and the planting of much shrubbery and trees. Homes for employes [*sic – employees*] will also be erected in the vicinity of the lake.

Plans are also being made for extensive [*sic – extensive*] logging operations and a number of camps will be operated, but their location has not yet been decided upon. Logs sufficient to keep the big mill in active operation with day and night crews will be cut and shipped to Iron Mountain during the winter and this means employment for five hundred or more men. Like the von Platen company, the camps will be operated winter and summer.

The Michigan Iron, Land and Lumber company has been incorporated to handle this branch of the industry. The officers elected are:

President – Henry Ford.

Vice-President and Assistant Treasurer – Edward G. Kingsford.

Treasurer – Edsell [*sic – Edsel*] Ford.

Secretary – C.B. Longley.

The Ford Motor company has closed the deal for the purchase of the Trenary residence property on the south side of East Brown street and will erect thereon an office building to cost more than \$25,000.

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The location of the office building in that district should have a tendency to keep the town from slumping to the south and hold real estate prices level.

The desire of the Ford Motor company to have their several industries – constructed at a cost of more than a *[sic]* \$1,000,000 – incorporated in the limits of the City of Iron Mountain, *[sic]* should meet with an enthusiastic affirmative response from our citizens. And the incorporation of the plants within the city limits means many problems for our city government and public utility companies to solve, and there should be no delay in solving them. The building of new streets and the extension of the sewer system means a large money expenditure. This expense can be met only by a bond issue and this bond issue should be sufficiently large to prove *[sic – provide]* for the needs of a city of not less than 50,000 people. The issue should be for not less than \$250,000. Then the Water and Light and Power companies should plan to greatly enlarge their plants at once for a greater Iron Mountain. New school buildings will also be necessary, but an increase in volume of taxable property may provide for this demand. Now is the time to plan for greater things. The county road commission is already moving and last Monday decided to improve the highway leading west from Carpenter avenue to the factory sites on the Mongrain farm and will do this work at once.

*Iron Mountain Press*, Iron Mountain, Dickinson County, Michigan, Volume 25, Number 16 [Thursday, September 2, 1920], page 1, column 6

## **Machinery for Mill.**

The Michigan Iron, Land & Lumber company has placed an order with the Allis-

Chalmers company, of Milwaukee, for several hundred thousand dollars worth of machinery for the Iron Mountain saw-mill *[sic – sawmill]*. Work on the mill is progressing at remarkable speed, much of the structural steel being in position. The same is true at the power-house and both buildings will be under roof in advance of schedule. Work has started on the office building on East Brown street and the brick and other materials are arriving rapidly. Work on the railroad is nearing completion.

*The Iron Mountain Daily News*, Iron Mountain, Dickinson County, Michigan, Volume 1, Number 2 [Wednesday, April 13, 1921], page 1, columns 1-2

## **FORD SAWMILL TO OPEN ABOUT JULY 1**

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### **Course of Timber Through Machinery Will Minimize Waste**

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### **All Machines Will Be Individually Driven by Plant’s Own Current**

Machinery and other equipment which will eventually handle 100,000 feet of timber a day is in process of installation at the Ford plant near this city. About twenty per cent of the complete equipment for the saw mill *[sic – sawmill]* is already in place, consisting largely of the live rolls, edgers, band mills and trimmers. Four 300 horse power Wicks boilers are being placed in position in the power house east of the mill. A steam turbine capable of 750 horse

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power will furnish power for the large mill saws.

## **6,000,000 Feet of Logs.**

There are already approximately 6,000,000 feet of logs piled up in the yards adjoining the plant. None of these, however, have come from the Ford holdings, according to R.V. Dudley, superintendent of construction. It is not likely, Mr. Dudley declares, with the present price of logs maintaining, that camps will be constructed this summer, it being possible to secure the material at a lower price from contract firms than by building and maintaining woods camps. The matter of opening up the camps on Ford's vast area of hardwood timber is, therefore, indefinite, and contingent, for the present, upon the lumber market.

## **The Saws in Mill.**

The saw mill [*sic – sawmill*] will house five large saws – two band mills, a gang saw and two re-saws. These will reduce the process of the lumber manufacture into three distinct operations. The logs, hauled up to the receiving deck from the log or mill pond, will first be shaped, or squared, by the band mills. Chain conveyors will then carry the timber to the gang saw, where it will be sawed, and, finally the slabs will be run through the re-saws, where the usable timber will be separated from the waste. The latter will be utilized for shingles, box boards and laths, and whatever may remain from the latter process will be salvaged for fuel. It is evident that there will be a minimum of waste.

## **All Individual Motors.**

A distinct feature of the mill is that every machine within it will be operated by an individual motor, with power furnished by the huge Wick's turbine.

The site for the dry kiln, where much of the timber will eventually be dried and prepared for shipment, has been staked

out, and it is likely that construction will begin within a short time. The first section of the kiln will measure 20 by 200 feet with additional space as the needs require.

## **No Body Plant This Year.**

There is no immediate prospect for the body plant, according to Mr. Dudley. It is not likely, he declares, that work will be begun this year. Orders to that effect are not anticipated until late in the season, at the earliest. That another year will see this work begun, however, is a certainty, officials declare. There will be, eventually, two body plants located at the company's site near this city. Each will measure 120 by 740 feet, and they will utilize the bulk of the material turned out at the mill.

A small veneer plant, in connection with the mill, is another likelihood, although arrangements for this feature are but tentative. Construction of a transfer or sorter building, directly south of the mill, will be begun shortly. The latter department will separate the timber, as it is carried from the mill, for piling in the yard at the rear of the plant. The space between the tracks which encircle the plant site to the west will be utilized as a lumber yard.

## **No Transport Monopoly [*sic – Monopoly*].**

There has not been, and likely will not be, any definite arrangement with any railway concern for the handling of the timber enroute [*sic – en route*] to Detroit from Iron Mountain. Similar to the Ford policy employed in shipping the goods from the Detroit factories, this feature will depend entirely upon freight rates. It is expected, according to Mr. Dudley, that when the mill begins to operate at capacity, Ford-owned carriers will be employed to carry the stock from the mill to the main line of the St. Paul, the laying of this stretch of track being already completed. There will eventually be about six miles of track constructed at the plant.

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## **Will Conserve Timber.**

A distinct feature of the Ford activities in upper Michigan will be the strict timber conservation policy to be carried out in the woods operations. The heavy, usable timber will be marked for cutting, and this only will be utilized at the start. Every possible means will be employed to preserve the young tree in the felling of the old, and to clean up brush, slashings and other refuse as the work progresses. In that way, another ten years will permit the re-logging of the same territory on which operations will be opened up.

## **Farm Development.**

Another interesting phase of the plant operation in Iron Mountain is the rather extensive farm development plan which, according to Mr. Dudley, will be begun this summer. There are approximately 3,500 acres of productive farm land immediately adjoining the plant site. A considerable area of this has already been plowed, and will this summer be sowed to grasses and grains. Later this year, if conditions permit, this work will be expanded to include root crops, with the likelihood of eventually working out a dairy or central farm marketing plan for the employes [*sic – employees*] of the plant. More than that, if, eventually, the farm plan is carried out still further, a portion of the product will be distributed throughout the immediate vicinity. All of this, however, is dependent entirely upon orders which may be received from Detroit, although it seems practically certain the farm plan will be given considerable attention.

## **To Build More Houses[.]**

Thus far, only ten company houses have been constructed, these being occupied by the foremen, and other officials. It is expected that more will follow as the work at the plant progresses.

The outstanding feature of it all seems to be that, contrary to somewhat persistent rumor, work at the plant is going ahead rapidly and that on or about July 1 the residents of Iron Mountain will be awakened from their early morning slumbers by a siren whistle, announcing the first turn of the huge power turbine.

*The Iron Mountain Daily News*, Iron Mountain, Dickinson County, Michigan, Volume 1, Number 50 [Wednesday, June 8, 1921], page 3, columns 1-2

## **RAPID PROGRESS AT FORD SAWMILL**

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**Now Believed it Will Be  
in Operation Before  
July 1**

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Construction work at the Ford plant here is progressing rapidly and it is now believed that the sawmill will be operating before July 1. There has been usual delay in obtaining materials and were it not for this act the sawmill would be operating now.

Temporarily, the Peninsular Power company will furnish the Ford company with sufficient power to operate the sawmill, pending completion of the boilers and the erection of the turbine engine and dynamo which, it is stated, have been shipped and which will be part of the Ford power unit.

Two of the four large Wickes boilers in place are practically all bricked in, and work on the other two has been started. The plans call for the operation of eight of these large boilers, with a total capacity of 2,400 h.p., of 300 h.p. each. It will only take one boiler to run the sawmill.

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One unit of the dry kilns is nearing completion and a second has been started. According to present plans, a total of six units of the dry kiln will be erected. Lumber trams are being constructed and everything is being speeded up to handle the lumber when the big sawmill goes into commission.

Notwithstanding the sawmill is one of the largest of its kind in the country, it will not be able to supply the enormous amount of lumber required by the Ford company. It has been officially stated that between 200 and 300 board feet on the average per car is consumed by the Ford company. With a production of over [?],000 cars per day, 1,200,000,000 feet could be consumed and, working three shifts, the maximum output of the present sawmill here is estimated at only about 200,000 feet per day.

While over 6,000,000 feet, al hardwood, have been delivered at the plant, more logs are arriving every week and until such time as the Ford company completes plans for cutting the timber on its own lands, logs will be bought in the open market, as they have been in the past six months.

General business in this city has been very satisfactory especially in comparison to the reports being brought in from other cities and the number of unemployed is much less than in most sections.

*Iron Mountain News, Iron Mountain, Dickinson County, Michigan, Volume 1, Number 78 [Tuesday, July 12, 1921], page 1, columns 7-8*

## FORD SAWMILL FORMALLY OPENED THIS AFTERNOON

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## Ford Officials And Businessmen Watch First Lumber Sawed

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### C.W. Avery, General Manager, Represents Motor Company – Will Proceed With Construction of Body Plant, He Announces

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Out at the Ford plant, south of the city, smoke is curling from the big, netting-guarded stack. From within the sawmill sounds the hum of electric motors punctuated by the shriek of saws biting through the maple logs that move in slow procession up the chute from the hot-pond [*sic – hot pond*]. At the far end of the mill freshly-sawed planks are being carried down the transfer to the waiting pilers below. In many places, the piles of lumber are already assuming appreciable size.

The Ford sawmill has formally begun operation.

In the presence of C.W. Avery, general manager of the For [*sic – Ford*] Motor company [*sic*], E.G. Kingsford, vice president of the Michigan Iron, Land & Lumber Company, and about 100 members of the Commercial and Rotary clubs, the first logs were put through the new Ford sawmill this afternoon.

Since Saturday, when the saw was tried for the first time, the men had been at work testing and finishing the machinery, and everything worked perfectly. At 1:30, a long blast of the mill whistle announced the start of the huge band mill. A few minutes later, the spectators gathered on the platform to see the first log come up the chute from the hot pond. As it entered the mill building, it

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was “christened” by M.J. Fox with a cup of water. Then it was rolled down the slanting rack ready to be placed on the saw carriages by the steam “nigger.”

## **First Slab Cut Off.**

Robert Jenks, sawyer, and Joe Bernette, setter, took their places at the controls. The log was thrown upon the carriages and locked. Sawyer Jenks moved a lever, and the carriage rolled slowly up to the rapidly moving band mill. Almost before the spectators realized it, the first slab was off, and the carriage was back ready for the next cut.

Planks followed in rapid succession, and moved down the conveyors to the edger. The slabs went to the “hog,” to be ground up and conveyed to the boiler room. The trimmer was not working, so the planks went over it, and out on the conveyor to the transfer, where loading was started. It was just twenty minutes after the saw was started that the first planks were received off the transfer.

## **Peninsular Power.**

Two boilers had steam up in the boiler house, hand-fired through lack of material in the storage bins. Power was furnished by the Peninsular Power company, and the mill will continue to operate on this power until the turbo-generator, which is being nickel-plated, arrives.

There were a few minor delays, but on the whole the movement of lumber through the plant was as smooth as could well be expected. There was momentary excitement when a large maple log started on a rampage and headed straight for a group of Rotarians. Slight trouble also developed with the edger, but was repaired in a few moments. Matthew Cunningham, superintendent of the Mill [*sic – mill*], R.V. Dudley, in charge of construction, and Messrs. Avery and Kingsford received congratulations on every hand.

## **Will Not Slacken.**

There will be no slackening in the building operations of the company, Mr. Avery declared. As soon as one unit is completed, the force will move on to the next. There will be no spectacular increase, but a steady growth toward the completion of the sawmill and construction of the body plant, he said.

*The Iron Mountain Daily News*, Iron Mountain, Dickinson County, Michigan, Volume 1, Number 78 [Tuesday, July 12, 1921], page 6, column 1

## **OPENING OF MILL MARKS CLOVERLAND EPOCH**

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## **COMPLETION OF MILL TOOK JUST ONE YEAR**

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### ***First Lumber is Sawed on Anniversary of Engineers’ Arrival in Iron Mountain***

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Just short of a year ago Iron Mountain, a somnolent little mining city, beginning to feel the first inklings of the slump in the iron industry, was electrified overnight by the news that the Ford interests had decided to locate their body plant here, furnishing employment when completed, to approximately 2,500 men.

Nothing was ever seen in the upper peninsula like the demonstration which followed the announcement. The city took a day off to celebrate. Real estate values soared within a few hours to unheard of heights. From all over Michigan,

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD’S FORD PLANT COMPLEX

*[Compiled and Transcribed by William John Cummings]*

Wisconsin, Illinois and Minnesota, strangers poured in, anxious to “get in on the ground floor” of the new Ford city. The name of Iron Mountain, coupled with that of the huge motor concern, was spread broadcast over the country by the press.

## **Work Started July 18.**

It was just a year ago that H.E. Carlin and R.V. Dudley from the Detroit headquarters arrived with their staff to lay out the plant site. Within a few days the stakes for the great buildings were set, and within a few weeks, before the middle of August, in fact, concrete was being poured in the first molds. The work went on apace with a force of approximately 175 men, and pouring of the concrete was finished before cold weather came. By Thanksgiving the building was ready for the installation of machinery, which was immediately begun.

Then came the slump. Work was suspended January 1, and until April 1 the organization practically marked time. A few men were kept on the job installing such machinery as they could but the activity was a small fraction of that which had been seen before.

With the spring, however, things began to brighten. The force was gradually increased, until at present, not counting the sawmill operating crew, it numbers as many men as before the shutdown. Machines went up as if by magic. Rolls were installed, conveyor belts built, and the huge boilers bricked in. Some weeks ago the construction gang started on the first dry kiln, which is now ready to receive the lumber as it comes from the saws.

## **Details Halt Opening.**

Early in June, even a layman could see that the plant was virtually completed. Even the great smokestack was in place. Six million feet of logs lay ready in the storage yards of the plant for the beginning of operations.

But, as might have been expected, there were the multitudinous little details that needed attending to. Motors and starting-boxes [*sic – starting boxes*] for them were the main items of equipment lacking, and in a plant where every machine is individually motor-driven, the lack of one motor proved a serious handicap to smooth operation.

On Saturday, the saws were tried for the first time. The men were kept at work all day Sunday, making an adjustment here, an alteration there, and putting the machinery in top-notch condition for the formal opening of operations.

The record of the Ford company in turning the wheels of such a mammoth plant in less than a year after the ground was staked out, and that despite a suspension of three months, is one that has never been equaled north of the straits, and augurs well for the future of the industry.

*The Iron Mountain Daily News*, Iron Mountain, Dickinson County, Michigan, Volume 1, Number 219 [Tuesday, December 27, 1921], page 1, column 4

## **FORD “MOVIES” TO BE TAKEN AT MILL HERE**

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### **Will Be Part of Film Showing Log’s Progress Into Car Parts**

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“From Forest to Flivver” or “From Log to Lizzie” may or may not be the title of the film which will be put out in the near future in the Ford weekly news reel. It will trace the progress of lumber from the company’s camps near Sidnaw to the finished car, and

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD’S FORD PLANT COMPLEX

*[Compiled and Transcribed by William John Cummings]*

many of the scenes will be taken at the mill here.

This film, according to E.G. Kingsford, will start with a view of the cuttings on the company’s lands near Sidnaw. Scenes of the camp will follow. Next will be shown the felling of the trees, trimming, skidding the logs with Fordson tractors, loading on cars, and the completed train.

Iron Mountain will be “location” for the next set of scenes. The camera will record the unloading of the logs and their dumping into the “hot-pond” [*sic* – “hot pond”]; the trip up the conveyer, and their progress through the band mills. Then, with the camera located in the balcony of the filing room, the progress down the rolls, through the re-saw, edger and trimmer will be filmed, followed by views in the yard, showing the log transfer, and the pilers at work. The Iron Mountain series will close with the process of charging the dry kilns.

Then, in the present body plant at Detroit, the remainder of the film will be taken, showing the removal of the lumber from the kilns, its passage through the shapers, and, finally, its assembly in the body of the finished car.

*The Iron Mountain Daily News*, Iron Mountain, Dickinson County, Michigan, Volume 1, Number 226 [Thursday, January 5, 1922], page 1, column 7

## FORD PHOTOGRAPHER “SHOOTS” PLANT HERE

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**Operations at Sidnaw Will  
Also Be Photographed  
For News Reel**

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George Ebeling, photographer for the Ford news weekly, arrived in the city this morning, and accompanied R.V. Dudley out to the plant, where pictures were taken for the reel which will be made showing the progress of Ford timber from the woods at Sidnaw to the finished car. Part of the process will be photographed here showing the arrival of the log train, the dumping of the logs into the hot-pond, their trip through the sawmill and piling yard and into the dry kilns. From the dry kilns on the pictures will be taken at the Detroit plant.

From here, the photographer will go to Sidnaw, to take views of the Ford cuttings, and, incidentally, of other nearby cuttings where Ford methods are not in use, to show the contrast. The stand of timber, the camps, and skidding and hauling of logs will be shown together with the activities of the Fordsons in hauling the loaded sleighs to the railroad spur.

An interesting feature of the Sidnaw views will be pictures of the power driven tree felling saw in saw in action. This saw, invented and manufactured in Sweden, was recently demonstrated at Sidnaw by Walfrid Olson, the inventor. The basic idea was thought sound, but the saw required a different temper. Improvements have since been made on the contrivance at Detroit, and it will be used exclusively for cutting logs next winter. It will cut through a three-foot free in about 30 seconds, while two sawyers would require 13 minutes to make the same cut. It had been hoped to have the machine at Sidnaw in time for the demonstration Tuesday, but the inventor has sent word that he will probably arrive Saturday.

The device consists of a triangular frame around which a band-saw runs. A small and light gasoline motor at the apex furnishes power, and the pulleys about which the saw runs are inclined at the base,

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD'S FORD PLANT COMPLEX

*[Compiled and Transcribed by William John Cummings]*

permitting the blade to project at an angle of about 45 degrees. The span between the two sides is sufficient to admit a 36-inch tree, which will, it is believed, include anything in the woods.

In use, a sawyer grasps each side of the frame by a handle provided for the purpose, and by other handles located at the apex, tilts the frame to the proper angle for directing the blade into the tree. The entire contrivance weighs only about 50 pounds, and can be easily operated by two men, or carried by one.

*The Iron Mountain News*, Iron Mountain, Dickinson County, Michigan, Volume 2, Number 258 [Saturday, February 17, 1923], page 1, column 5

## FORD SAWMILL IS ON THREE SHIFTS

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### 175 Men Are Added to Payroll For Increased Operations

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Beginning last night at 11 o'clock the Ford sawmill went on an operating basis of three shifts a day.

This schedule, it is understood, will be maintained indefinitely in order to supply as much as possible, with the help of the Michigan Iron, Land & Lumber company's mill at L'Anse, the lumber requirements of the parent company at Detroit.

Each shift is eight hours in length, with an allowance during this time of 15 minutes for lunch. One hundred and seventy-five men will work from 11 p.m. to 7 a.m. The

working hours of the other two shifts are from 7 a.m. to 3 p.m. and 3 p.m. to 11 p.m.

Production throughout the entire plant, including the body units, is being speeded up to a high point and only lack of power, it is declared, is holding back the company from adding a third shift in the body units. Sections of these units are already operating on a three-shift basis but with the sawmill operating the load is too heavy on the power house to permit the entire plant being run steadily for 24 hours every day.

With the addition of the third sawmill shift, officials of the plant are confronted with the problem of taking care of maintenance. Because of the heavy wear and tear, sawmill machinery must be constantly cleaned and repaired. To solve the question various parts of the mill will probably be shut down at different times so that the machinery can be inspected. Advantage will also be taken of the 15-minute lunch intervals to perform this task.

The 175 new employees are working only on sawmill operations, including the handling of the timber in the yard, putting it through the mill, keeping the dry kilns filled and stacking the remainder in the yards.

Rumors that the mill was going on three shifts resulted in a large number of men applying at the East Brown street office for work. It was emphatically stated, however, that employes [*sic* – employees] are being hired only through the mails, but even the fact that signs to this effect were placed in the windows of the office did not entirely stop the flood of personal applications.

The plant is now employing in the neighborhood of 1,200 men, and only a small section of the No. 2 body plant is in operation. New machinery is being installed daily to this unit and its production increased.

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD’S FORD PLANT COMPLEX

*[Compiled and Transcribed by William John Cummings]*

*The Iron Mountain News*, Iron Mountain, Dickinson County, Michigan, Volume 2, Number 275 [Friday, March 9, 1923], page 1, column 7

## NEED MORE POWER AT MILLCO PLANT

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### New Office Building Also Planned; Name of Company Changed

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Although no definite program has been outlined for this summer, enlargement of power facilities and construction of a new office building are being contemplated, E.G. Kingsford, of the Ford Motor company, declared today.

“We are in need of more power and we will either enlarge the present power house or build a new one,” he said. “As for the office building, well we need that too and we hope to be able to put it through this summer but that is undecided. The building would be constructed at the plant.”

The name of the company was recently changed from the Michigan Iron, Land & Lumber company to that of the Ford Motor company, the subsidiary having been absorbed as a part of the parent plant at Detroit. This policy, Mr. Kingsford explained, is being followed with regard to all the subsidiaries of the company.

At the present time the sawmill is running on three full shifts while the two body plant units are running three shifts as far as power facilities will permit. Production at the new body plant unit has reached a high scale and machines are still being added. The total number of men on

the payroll here is now between 1,300 and 1,400.

Asked regarding the possibility of new body plant units being built this year, Mr. Kingsford declared that “whatever development takes place will go forward gradually.” The plans for the proposed chemical plant are said to still be in a formative state and no word has been received from Detroit as to when construction will start.

The location of the chemical plant here is not definite but in all probability, according to Mr. Kingsford, it will be built in Iron Mountain. In a recent interview Mr. Ford was quoted as saying that the company was “planning on building the largest chemical research plant in the world at Iron Mountain.”

Announcement that a chemical plant would be built has led to considerable speculation as to the possibility of a furnace also being constructed. There are no plans for this at present, Mr. Kingsford said, but he added that “if we have a large amount of charcoal for which we have no market we’ll create a market for it.”

Concerning a rumor that the company was negotiating for the purchase of the von Platen-Fox mill, Mr. Kingsford asserted that there was nothing to the report and no deal for the property has been closed.

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## FORD BODY PLANT Ford Plant Kingsford

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*The Iron Mountain Daily News*, Iron Mountain, Dickinson County, Michigan, Volume 1, Number 256 [Thursday, February 9, 1922], page 2, columns 1-2

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD'S FORD PLANT COMPLEX

*[Compiled and Transcribed by William John Cummings]*

## ***Ford Plant To Have Capacity Of 750,000 Bodies Per Year***

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**Estimate Includes 600,000  
Touring Cars and 150,-  
000 Sedans, or 1,660  
Per Day**

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The plant of the Michigan Iron, Land & Lumber company, now in course of erection in this city, will have a capacity for manufacturing 750,000 bodies yearly for the Ford Motor company. This authorized estimate includes the bodies for 600,000 touring cars and 150,000 sedan bodies. In order to reach the estimated output it will be necessary for the Iron Mountain body plant to manufacture daily 360 complete sedan bodies and 1,300 bodies.

The above figures will give skeptical Iron Mountain people some conception of the immensity of the Ford industries to be operated here.

In addition to the sawmill plant, now nearing completion, and one unit of the body plant, now nearing completion, the activities of the Michigan Iron, Land & Lumber company, as directed by Henry Ford, ably seconded by Edward G. Kingsford, contemplates other factories for the consumption and conservation of the forest products of the corporation.

The output of the Iron Mountain plant will be the same as that of the Ford Motor company plant at the Rouge works near Detroit.

Kenneth D. Cassidy, a financial editor, in an article printed in the Michigan Manufacturer and Financial Record, gives some interesting data regarding the

operations of Henry and Edsel Ford in this country and elsewhere.

Ford plants in the United States in 1921 produced 928,750 cars and trucks; Canadian plants turned out 42,348, and foreign plants 42,860, a total of 1,013,958. Tractor production which was practically restricted to American factories, totaled 36,782, raising the entire output to 1,050,740 cars, trucks and tractors. This figure has never been equaled in motor production. August, with an output of 118,110 cars and trucks, was the largest month in the Company's history. The largest single day was July 14, when 4,461 cars and trucks were built.

Sales for 1921, including cars, trucks and tractors, totaled 1,093,000 or 42,260 more than production figures. This discrepancy in sales and output is explained by the large supply of cars which dealers had on hand at the beginning of the 1921 year. Domestic sales of 1921 exceeded those of 1920 by 104,000.

Ford interests include eight manufacturing plants, five being in this country and one each in Canada, England and Ireland. In addition there are twenty-seven assembly branches and eight service stations in the United States and ten assembly branches and eight service branches in foreign countries, making a total of 61 plants. A valuation of \$400,000,000 has been placed by Henry Ford on land, plants and inventories of his various enterprises in the United States and abroad.

The assembling branches turn out cars, trucks and tractors form parts shipped from the manufacturing units. The twenty-seven assembly stations in this country have an aggregate capacity for turning out upwards of 5,500 vehicles a day. The Kearney, N.J., plant with a capacity of 500 a day is the largest assembly station. Detroit is second

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD’S FORD PLANT COMPLEX

[Compiled and Transcribed by William John Cummings]

with 350 a day, and Minneapolis third with 315 daily. Remaining domestic assembly plants have capacities ranging from 100 to 250 a day. A major portion of parts used by all assembly stations is manufactured at the Highland Park plant, but only about 350 vehicles are actually assembled there.

The ten foreign assembly branches are located as follows: Four in Canada, one in England, and on [sic – one] each in France, Spain, Denmark, Brazil and Cuba. The English plant ranks first with a capacity of 225 assemblies daily, while the aggregate capacity is 465 vehicles a day.

At the present time there are approximately 225,000 Fordson tractors in use, 170,000 being utilized in farming activities. It is rumored that Ford interests are preparing to produce a two-ton truck, equipped with a tractor engine, which will be adapted to farm work and have interchangeable parts with the tractor.

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## **DRY KILNS** **Ford Plant** **Kingsford**

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*The Iron Mountain News*, Iron Mountain, Dickinson County, Michigan, Volume 2, Number 110 [Saturday, August 19, 1922], page 1, column 2

### ***Visit To Ford Plant Gives One Only Faint Idea Of Its Magnitude, Now and Future***

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### **Completion of Dry Kilns Will Mean Biggest Bat-**

### **tery in the World.**

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A faint idea of the magnitude of the Ford plant, not only in its reality, but in its possibilities, may be gained from an inspection of the work already done and that now under construction.

The present plant, aside from the sawmill and boiler house, consists of one body unit, six dry kilns and what are said to be the largest lumber yards in the upper peninsula.

The body plant is 120 feet wide and 360 feet long. To this will be added 100 feet, making it 460 feet in length. Concrete bases and steel reinforcements have already been erected by the Worden Allen company, of Chicago, which has the contract for erection of a new body plant, 460 feet long by 120 feet wide, the 100 foot addition to No. 1 body plant, and 14 new dry kilns.

### **Biggest in World.**

When the 14 new dry kilns are completed, making a battery of 20 in all, they will represent the largest kiln battery in the world, and also they will be the largest kilns in the universe, being 20 feet wide by 233 feet in length. The kilns will be fireproof, of all cement construction – “Ford construction,” F.H. Schmitz, superintendent of the Worden Allen company, termed it, indicating that by that he meant “the best there is.”

Footings for the kilns, six kiln floors and tunnel No. 3, all of concrete, have been poured. Concrete for the floor of tunnel No. 5 will have been poured today, it is expected.

Concrete for the four walls, five feet high, with 12 feet of tiling above it, is now being poured. The walls will be reinforced with steel, and, with concrete roof, will be

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD’S FORD PLANT COMPLEX

*[Compiled and Transcribed by William John Cummings]*

fireproof in every detail. The 14 new kilns will extend 280 feet to the south of the present six kilns.

## **Start Steel Work Soon.**

With the arrival of two carloads of steel earlier this week and two more expected today, it is hoped to begin erection of steel probably Tuesday, Monday being occupied with the setting up of a boom for the handling of steel.

The boom, 90 feet in height, will be operated by a gasoline engine, which is enroute [*sic – en route*] now, according to Mr. Schmitz. With erection of the boom, steel construction work on No. 1 body plant will begin, as will the pouring of cement for the five foot concrete walls.

An Isley mast tower will be used in the cement work, both on the body plants and on the kilns[,] greatly facilitating the operations.

Annexes, 40 feet in width and running the entire length of the dry kilns, will make it possible to remove lumber from the kilns into the body plants for sawing or to either end for loading directly into cars for shipment. The annexes are to be roofed, so that the cured lumber will not be subjected to rain or weather risks.

An idea of the immensity of the project may be gained from the following figures:

There will be 125,000 square feet of concrete floor in the new body plant.

Four hundred tons of structural steel will be used, with 154 tons of reinforcement steel.

Five thousand rivets will be used in the steel construction.

In the dry kilns, 43,000 pieces of roofing tile will be used, with 35,000 pieces of tiling for the walls.

## **A Lot of Pebbles Here.**

Four thousand five hundred cubic yards of gravel are to be used in the concrete work. To the average persons [*sic –*

*person*] this is merely 4,500 cubic yards, but when it is realized that each cubic yard of gravel weighs over a ton, 2,600 pounds to be exact, a new idea of the amount of material necessary is given.

Two thousand two hundred and fifty cubic yards of sand – and two cubic yards, weighing 5,200 pounds make a big truck load – are required for concrete work.

About 100 men are being employed by the Worden Allen company, most of the men employed by the Ford sawmill when it closed a week or so ago.

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## **FORD OFFICE BUILDING ON BROWN STREET IN IRON MOUNTAIN**

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*The Iron Mountain Daily News, Iron Mountain, Dickinson County, Michigan, Volume 1, Number 78 [Tuesday, July 12, 1921], page 6, columns 2-3*

## **Office Building Credit to City**

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### **Handsome New Structure Houses Ford Clerical Staff**

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Iron Mountain’s business section has a notable addition in the new office building of the Michigan Iron[,] Land & Lumber company, located just east of Stephenson avenue on Brown street. It is a handsome edifice, two stories in height, of red mat [*sic – matte*] brick, trimmed in Bedford stone.

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD’S FORD PLANT COMPLEX

*[Compiled and Transcribed by William John Cummings]*

Excavation for the building was started September 18, and the completed structure was ready for occupancy shortly after April 1. The company moved in about April 15.

The building is even handsomer inside than out. All woodwork is of gumwood, finished in walnut, and partitions are of plate glass. Floors, except in the corridors, where they are of mastic, are of hardwood. The walls are finished in soft colors, with a stencil decoration around the border. The ceilings are in cream, acting admirably with the semi-indirect Denzar lighting fixtures.

The lower floor houses the general offices of the company with the land office in the rear, where at the second door are the accounting offices, which have not yet been occupied.

F.E. Parmelee & Son, of this city, were in charge of the construction.

*The Iron Mountain News*, Iron Mountain, Dickinson County, Michigan, Volume 4, Number 38 [Saturday, May 24, 1924], page 1, column 3

## FORD OFFICES TO BE MOVED

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### Abandon East Brown Street Building For Quarters at Plant

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Plans for moving the Ford Motor company's offices from East Brown street to the plant site have been completed and the work will be started tomorrow, it was announced today.

Some time ago it was declared the East Brown street building would be abandoned and a large office building erected at the

plant site. Construction of the office building, however, has been held up and quarters for offices have been provided in the maintenance building.

Temporarily the land department will retain its quarters in the East Brown street building until preparations are completed for moving valuable records now kept in a vault.

No plans have been made yet for the future use of the East Brown street building. It will be either rented or sold, it was stated.

With the continued expansion in the size of the plant and the corresponding increase in business here, the present quarters of the offices proved inadequate, necessitating the removal.

*Iron Mountain News*, Iron Mountain, Dickinson County, Michigan, Volume 5, Number 22 [Wednesday, May 6, 1925], page 3, columns 3-4

## Ford Office Building Offered For \$25,000

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### No Opposition to City's Proposal to Purchase at That Price

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The Ford Motor company has offered to sell its abandoned office building on East Brown street to the city for \$25,000, according to a statement to members of the city council.

The city desires to purchase the property because of claims that the present city hall is cramped for office space and additional quarters are needed.

The council committee appointed to investigate the proposition reported that

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD'S FORD PLANT COMPLEX

[Compiled and Transcribed by William John Cummings]

although no plan of payment was proposed, the price had been set. The committee inspected the building and stated that it was in excellent condition and well suited for city offices.

## **Too Small For Company**

The building was erected at the time the Ford Motor company came to Iron Mountain. It housed the company offices until about a year ago when it became too small and quarters were fixed up in the maintenance building at the plant.

The proposition has been referred to the council finance committee for further investigation and it is probable that some definite plan of action will be recommended at the next regular meeting of the council. No opposition has been expressed to the committee's recommendation that the city purchase the building.

## **Enlargement of Cemetery**

Two propositions have been presented by the von Platen-Fox company for the purchase by the city of the land owned by the company adjacent to the city cemetery. One strip of land with a 50-foot roadway separating it from the cemetery has been offered for \$30,000, while the other section, consisting of five acres and located north of the Wisconsin Michigan railroad, has been offered for \$40,000. A council committee recommended that the five-acre site be purchased inasmuch as it is believed more suitable for use as a cemetery and is practically cleared.

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## **FORD HOMES IN ALONG CRYSTAL LAKE**

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*Iron Mountain Press, Iron Mountain, Dickinson County, Michigan, Volume 25,*

Number 14 [Thursday, August 19, 1920], page 1, column 5

## **BUILD FIFTY HOMES**

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### **Near Crystal Lake At Once By Michigan Iron, Land & Lumber Co.**

The Michigan Iron, Land & Lumber company has been organized by the Ford Motor company interests for the purpose of conducting the Iron Mountain saw-mill [*sic – sawmill*] and body plant as well as the extensive logging operations. The company has been organized under the laws of Michigan with a capital stock of \$2,000,000. The company has been officered as follows:

President – Henry Ford.

Vice-President and Assistant Treasurer – Edward G. Kingsford.

Treasurer – Edsell [*sic – Edsel*] Ford.

Secretary – C.B. Longley.

Mr. Longley, the secretary, will remove here from Detroit as soon as he can secure a home.

An office building for the company is to be erected at once on East Brown Street, on the Trenary property, which was purchased recently. The materials for the building are now arriving and it is expected to start the work of excavating at once. It will be two stories in height with part basement and will be constructed of brick and re-enforced concrete. It will have a frontage on Brown street of 31.4 feet, at the rear 44 feet and 52 feet in depth. It will contain eight large and roomy offices, four on each floor, and a large vault room. The plans were made by F.E. Parmelee and his son Gale.

The Michigan Iron, Land & Lumber company has also placed orders for the

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD’S FORD PLANT COMPLEX

*[Compiled and Transcribed by William John Cummings]*

materials for the erection of fifty modern dwelling houses. They will be erected in the Crystal Lake district and they will be ready for tenants in the course of a month or two. The materials are now being framed at the factory in Lower Michigan and the residences can be erected in short order upon their arrival. The homes will contain six and eight rooms and will cost from \$4,000 to \$8,000 each and the lots will have a frontage of 50 feet and a depth of 150 [feet]. Unlike the average company houses, each will be of a distinctive style of architecture, and they will contain all the modern improvements. The erection of these homes is the forerunner of the many hundred that the company will build. The company, it is learned, will assist workmen in the erection of their own homes. Lots of large size will be sold at a most reasonable price and the men will be aided in erection.

At the saw-mill [*sic – sawmill*] and power plant the construction work is making really marvelous headway. The foundations are practically finished and structural steel work is now in hand. With present progress, it would appear that the saw-mill [*sic – sawmill*] will be in operation before the close of the year, provided the machinery arrives as contracted for. Many visitors re daily callers at the plant and expressions of wonder at the immensity of the plant are heard on all sides. The assertion that the plant will employ 2,500 men before the close of the year 1921 can readily be believed. All the men that can work to an advantage are being employed and the construction materials are arriving promptly.

Work on the railroad is nearing completion and it is hoped to have cars running to the plant early in September.

*The Iron Mountain Daily News*, Iron Mountain, Dickinson County, Michigan,

Volume 1, Number 78 [Tuesday, July 12, 1921], page 6, columns 1-2

## ***Will Improve Ford Addition***

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### ***Boulevard Along Shore of Crystal Lake Main Feature***

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Real estate operations of the Ford company in and about Iron Mountain are commanding great interest here, particularly since the acceptance by the city of “Ford’s First Addition.” This is the tract lying south of F street along Kimberly avenue, where the present Ford houses are located, and takes in the shore of Crystal Lake.

An extensive program of improvement and beautification has been planned by the owners. Before the lots are thrown open, water, sewer, gas, and electric connections will be made, streets graded and paved, and sidewalks, curbs and gutters built, making the new addition improved property in every sense of the word.

Perhaps the feature of the greatest general interest is the boulevard around Crystal Lake. This, according to present plans, will consist of an asphalt pavement paralleling that portion of the lake shore included in the addition. Shade trees will be planted along the drive and boulevard or “white way” lamp standards installed. This will give the city a residential section feature unequalled, it is believed, in any city in the upper peninsula.

This is only a portion of the improvements planned for the addition. Small parked spaces will be provided, with

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD’S FORD PLANT COMPLEX

*[Compiled and Transcribed by William John Cummings]*

shrubby and flowers. A landscape gardener will have charge of the work.

Ford employes [*sic – employees*] will be given preference in purchasing the improved lots.

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## FORD ADDITION HOMES

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*The Iron Mountain News*, Iron Mountain, Dickinson County, Michigan, Volume 3, Number 125 [Thursday, September 6, 1923], page 6, column 2

### **Ford Motor Company To Start Building Houses**

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#### **Program to Be Continued Indefinitely If Experiment Proves Successful**

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A house building program experiment that, if successful, will be continued indefinitely, will be undertaken immediately here by the Ford Motor company, it was announced today by E.G. Kingsford, chief of the company’s operations in the upper peninsula.

The company will take charge of the work itself, awarding contracts only for individual jobs, such as plumbing and lighting, Mr. Kingsford said, and it is planned to start with from 25 to 50 homes.

These houses will be constructed outside the city limits just south of the Ford store on the street running west. They will be two stores in height and have from five to seven rooms, basement and furnace. Various styles of architecture will be

employed in their design and the houses will be modern in every respect. Although the cost has not yet been determined, the houses have already been sold to employes [*sic – employees*] of the company, Mr. Kingsford said.

#### **Merely Experimental**

“This program,” he declared, “is merely in the nature of an experiment on the part of our company. If it proves successful we intend to continue building houses indefinitely or until there is no longer a demand.”

The property will be improved in every way. Sewer water facilities are already available and electric light wires are to be extended. In addition, next spring shade trees will be planted along the lots and the property beautified through landscape architecture. Sidewalks have already been laid.

Construction work is to start at once and will be continued until the houses now being planned have been built. In the event the experiment has favorable results, there will probably be no interruption in construction except that occasioned by weather conditions, and the program will be continued indefinitely. The houses are to be sold only to employes [*sic – employees*] of the company and will be disposed of on the time payment plan.

This is the second time that the company has engaged in house construction here, having built a number of homes on Detroit avenue to take care of employes [*sic – employees*] when the company first located in Iron Mountain and was building the saw mill [*sic – sawmill*].

*The Iron Mountain News*, Iron Mountain, Dickinson County, Michigan, Volume 4, Number 31 [Friday, May 16, 1924], page 1, column 4

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD’S FORD PLANT COMPLEX

[Compiled and Transcribed by William John Cummings]

## FORD COMPANY TO START 100 HOUSES

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### Construction Will Begin At Once, Declares U.P. Manager

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The Ford Motor company will start at once the construction of 100 houses in the village of Kingsford, according to a statement made late yesterday afternoon by E.G. Kingsford, general manager of the company in the upper peninsula. Whether or not any more houses than this will be built by the company depends upon the success of the present program and the demand for houses, Mr. Kingsford said.

The houses will be located near those built last year by the company. The district is being improved, sidewalks being laid and streets graded. Water and electricity are also available and gas service will be if the village approves granting the Citizens' Gas company a franchise at the election tomorrow.

Regarding the company's plant construction program for this year, Mr. Kingsford had little to say. Several months ago it was announced the company would build three body plant units this year but contracts for the work have not yet been awarded. While it is probable that the work will go forward later, the program is being held up at the present time.

#### Finish Present Jobs First

"We want to finish what we have under way now before we start anything else," said Mr. Kingsford. "The three body plant units we have are not yet fully equipped while construction of the chemical plant is not completed.

"If our new process of cutting green lumber proves successful we will not need as much body plant space as originally planned although the same number of men will be required to operate the plant. Our future plans depend to large extent on this."

The payroll now contains the names of 4,700 men. No additions are being made, practically the only employing being that to replace men who leave. Men will be added as machines are put in operation but this process is slow as many of the machines come from Detroit and the company requires full time production from them. It is necessary to take down these machines at Detroit, ship them here and re-erect them with the least possible delay and no loss in production if it can be accomplished.

#### No New Bunk Houses Planned

Asked whether the company planned to add to its bunk houses were 300 men are now being boarded, Mr. Kingsford said no construction of this kind would be done if it could be avoided. The bunk houses now are complete in every detail, even including a bakery where bread is also made for the Ford store.

While in some quarters it is felt that delay in the plant construction program may be due to the recession in the automobile industry, the Ford company is running at practically full production although other companies have curtailed operations. Inasmuch as the plant here supplies less than half of the requirements of the company for wooden parts, it is pointed out that even if Ford operations were curtailed this would not effect [*sic – affect*] production in Iron Mountain as contracts with outside firms would be cancelled first. There is little danger that production will be curtailed to any great extent if at all.

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# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD’S FORD PLANT COMPLEX

[Compiled and Transcribed by William John Cummings]

## FORD MANUFACTURING RAW MATERIALS

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*Iron Mountain Press*, Iron Mountain, Dickinson County, Michigan, Volume 25, Number 29 [Thursday, December 2, 1920], page 1, column 2

## FIRST LOGS FOR FORD PLANT

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### First Carload Arrived Here Yesterday.

When the clock struck three in this city last Monday afternoon it carried a significance with it for Iron Mountain, for it marked the arrival of the first carload of logs for the Ford saw-mill [*sic – sawmill*] now under construction here. The arrival of the logs was noted with unusual interest by the Ford employes [*sic – employees*] because it was the initial chipment [*sic – shipment*] to the Ford plant, an industry that means a prosperous and rosy future for Iron Mountain.

The arrival of the logs was hailed with a degree of delight probably proportionate to that which hailed the turning out of the first Ford car years ago at the Ford Motor plant in Detroit.

We understand that ten million feet of logs will be unloaded at the Ford property here before the winter is over and that the sawing of them will be started in the spring.

Work at the property is progressing nicely. The power house is now all enclosed, and within two days or so the outside work of the saw-mill [*sic – sawmill*] will be completed, a little stucco work

remaining to be done and some glass to be put in.

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## FORD COMMISSARY/STORE South Carpenter Avenue Kingsford

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*The Iron Mountain News*, Iron Mountain, Dickinson County, Michigan, Volume 2, Number 177 [Saturday, November 11, 1922], page 1, column 3

## FORD STORE TO OPEN MONDAY

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### New Establishment Is Equipped With Modern Fixtures

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The “Ford Commissary,” as the new merchandising establishment of the Michigan Iron, Land & Lumber company will be known, will be opened for business Monday morning at 8:30. The business will be under the management of Richard E. Boll, who was engaged in business at Channing for many years.

The store is located in a new brick building on South Carpenter avenue. The building is 115 by 50 feet in size, has a full basement and is one story in height.

The store is stocked with staple and fancy groceries, men’s and boy’s working clothing, a complete line of shoes, and fresh and salt meats. The meat market occupies one-third of the floor space and is constructed along modern sanitary lines. A chemical refrigerating plant is provided and

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD’S FORD PLANT COMPLEX

*[Compiled and Transcribed by William John Cummings]*

a “freezing” show-case is used for display. A feature of the market is an electric meat sawing machine.

In the basement are located the cooling rooms for the storage of fruits and vegetables. Another feature is a neatly furnished restroom for women and children. Business will be conducted on a strictly cash basis and the facilities of the store are open to the general public as well as the employes *[sic – employees]* of the company.

*Iron Mountain News*, Iron Mountain, Dickinson County, Michigan, Year 7, Number 5 [Friday, April 15, 1927], page 1, columns 2-3

## ***Ford Store Patronage Limit Effective Here Monday, Officials Say***

The general order of the Ford Motor company restricting patronage at Ford stores to Ford employes *[sic – employees]* only, growing out of the spirited protest in the city of Detroit, becomes effective at the Iron Mountain Ford store Monday morning, April 18, according to *[an]* announcement here today.

The ruling dates back to the recent meeting in Detroit, when representatives of the merchants retail associations met with officials of the Ford company with a definite proposal for the restriction of the operations of the stores, claiming that other retail dealers were being placed at a distinct disadvantage and that since the Ford Motor company had never professed an intention of realizing any profit from the stores, other dealers should be entitled to some consideration.

“Our order is simply in keeping with the general ruling,” an Iron Mountain official said today. “There is nothing more to it than that, beginning Monday, only Ford employes *[sic – employees]* will be permitted to trade at the Ford store.

“We have posted notices in the store building itself. The change will create no unusual shifting about of employes *[sic – employees]* within the store. If we find that the decreased trade, as the result of the ruling, permits us to get along with less help, we will naturally cut down the help, as any other similar management might do.”

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## **FORD CLUBHOUSE 705/713 Woodward Avenue Kingsford**

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The address of the Ford Clubhouse was originally listed as 705 Woodward Avenue, but later was listed as 713 Woodward Avenue. The following is a list of owners:

- 1924 Listed as the Ford Clubhouse on October 16 at 705 Woodward Avenue.
- 1938 F.J. Johnson, 705 Woodward Avenue
- 1943 H.W. Ulrich, 713 Woodward Avenue
- 1945 E.W. Stridde, 713 Woodward Avenue
- 1949 Alvin (Ruth) Thompson, 713 Woodward Avenue
- 1983 Barbara Church, 713 Woodward Avenue
- 1988 Dan Harrington, 713 Woodward Avenue
- 1994 Al Zablocki, 713 Woodward Avenue

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD’S FORD PLANT COMPLEX

[Compiled and Transcribed by William John Cummings]

2002 Lauri Granger, 713 Woodward Avenue

2005 Ron (Darlene) Solberg, 713 Woodward Avenue

*Iron Mountain News*, Iron Mountain, Dickinson County, Michigan, Volume 5, Number 36 [Friday, May 22, 1925], page 2, column 4

## FORD CLUBHOUSE NEARLY FINISHED

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**To Be Used as Headquarters for Visiting Officials**

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Interior decoration and furnishing of a few rooms on the second floor is all that remains to be done on the Ford Motor company clubhouse for visiting officials which is located on Woodward avenue in the village of Kingsford [*sic – Kingsford*].

The lounging room is furnished with a number of highly upholstered easy chairs and settees. Equipment for the dining room is expected to arrive here soon. The clubhouse also has an up-to-date kitchen, the walls of which are brilliantly enameled in white.

The second floor will have rooms for Ford officials who are visiting the plant here. It is not definitely known when the clubhouse will be opened but it is thought that it will be in readiness the early part of next month.

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**FORD HOSPITAL  
700 Block of Woodward Avenue  
Kingsford**

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*Iron Mountain Press*, Iron Mountain, Dickinson County, Michigan, Volume 25, Number 24 [Thursday, October 28, 1920], page 1, column 4

E.G. Kingsford, vice-president of the Michigan Land, Iron and Lumber company, has notified The Press that Dr. Joseph A. Crowell, chief surgeon for the Oliver Iron Mining company, has been appointed to the same position with his corporation.

*The Iron Mountain News*, Iron Mountain, Dickinson County, Michigan, \_\_\_\_\_ Year, Number \_\_\_\_\_ [Wednesday, May 21, 1924], page 6, column 1

## CONSIDER FORD HOSPITAL HERE

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**Would Be Located In  
City Across From Fil-  
tration Plant**

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Construction of a hospital in the city of Iron Mountain but adjacent to the village of Kingsford is being discussed by the Ford Motor company, according to E.G. Kingsford, upper peninsula manager of the Ford operations. No decision has been reached as yet, he declared, the project still being considered tentatively.

It is understood that if the building is erected it will be located within the city limits on Woodward avenue across from the Ford filtration plant. Woodward avenue is the boundary line between the city and the village. The hospital will be open to the public but Ford doctors must be employed.

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD’S FORD PLANT COMPLEX

*[Compiled and Transcribed by William John Cummings]*

There is little probability, it is said, that work on the structure will start before year if the proposal is approved. In the meantime, a drive is being planned in Iron Mountain to raise funds to complete the purchase and provide for the enlargement of the General hospital which will also be needed. The terms under which the General hospital was sold by Dr. W.J. Anderson and other stockholders of the old Westerlin hospital corporation provided that it be an open hospital both for doctors and the public and be governed by a board of trustees.

*The Iron Mountain News*, Iron Mountain, Dickinson County, Michigan, Volume 4, Number 248 [Monday, February 2, 1925], page 1, column \_\_\_\_

## CONTRACT FORD PRACTICE ENDS

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### Company Converts Woodward Ave. House for Use as Hospital

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Discontinuance by the Ford Motor company of what is known as contract medical practice was announced today. The discontinuance is effective immediately, employes [*sic – employees*] of the company no longer being assessed a certain sum each month for which they received medical attention whenever required for themselves and families.

The discontinuance will not cause the dissolution of the medical firm of Crowell, Belhumeur and Coffin, which has had the Ford contract, although it has meant the release of three physicians for private practice. These are Drs. Dave Eisele and

C.P. Drury, who have opened offices in the United States National bank building, and J.W. O’Neill, who has opened an office in the LaBrecque building in Breitung.

Crowell, Belhumeur and Coffin will continue to take care of the contract practice of the Oliver Iron Mining company, which has the same plan as was adopted by the Ford company when it located here. In addition, they hold contracts with the Chicago & NorthWestern and the Chicago, Milwaukee & St. Paul railroads and will take care of private practice.

#### **Paid \$1.10 Per Month.**

Employes [*sic – Employees*] of the Ford company, under the contract practice plan, each paid in \$1.10 per month for which they received medical attention whenever necessary for themselves and families but were required to summon one of the physicians under contract with the Ford company. Although in the long run this form of service was cheaper, the customary complaint against contract practice – that it limits selection of physicians – was expressed.

Although Ford employes [*sic – employees*] will not be required to pay the regular fees for medical service as received, men who become ill or injured while at work will be cared for at company expense in a new Ford hospital which has been equipped here.

This hospital is located in one of the new Ford houses on Woodward avenue, the house being remodelled [*sic – remodeled*] for this purpose. According to company officials, the equipment is of the finest, including one of the best X-ray machines in the upper peninsula. The hospital, it is stated, is a duplicate, in miniature, of the mammoth Henry Ford hospital at Detroit which from the standpoint of equipment, is conceded to be one of the finest if not the best in the country.

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD’S FORD PLANT COMPLEX

*[Compiled and Transcribed by William John Cummings]*

## **Ford Doctor In Charge.**

The hospital here is in charge of Dr. W.H. Alexander, who comes directly from the Henry Ford hospital in Detroit. At present it has five beds, in addition to an operating room and other departments. If demand necessitates the facilities will probably be increased.

Converting the house into use as a hospital will not affect plans for the construction of a large Ford hospital here, it was stated officially today. Some time ago it was announced that the Ford company planned building a modern hospital on a site in the vicinity of the filtration plant on Woodward avenue. This building would be of fireproof construction, with all modern equipment, and in addition to caring for employes [*sic – employees*] injured in the plant would, according to the original intention, be open to that part of the public desiring the services of the Ford doctors.

The present hospital, it was stated, is merely a “forerunner” of the one it is proposed to build.

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**FORD FILTRATION PLANT**  
**900 Block of Woodward Avenue**  
**Kingsford**

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**FORD CHEMICAL PLANT**  
**Ford Plant**  
**Kingsford**

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*The Iron Mountain News*, Iron Mountain, Dickinson County, Michigan, Volume 4, Number 12 [Thursday, April 24, 1924], page 1, columns 1-2

## **Ford Chemical Plant Will Start Operation Next June**

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### **Installations Are Rapidly Nearing Completion; Will Utilize All Waste.**

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It is now expected that the chemical unit of the Ford Motor company’s plant here will go into production the middle of June.

Work on the distillation building is well advanced. Practically all the equipment is installed and the principal work remaining to be done is the piping, which, it is said, can easily be completed before the prospective date for starting operations.

The carbonization building and its extensive equipment are not as far forward as the distillation building. However, the huge cylindrical dryers, through which the green wood passes in the course of being seasoned for the retorts, are now in position and the motor drives with which they are revolved are being tested. There are six of these huge rotating cylinders, two rows of three each, placed one above the other.

The three vertical cylinder retorts that will receive the wood from the dryer are in position. The wood will be fed into the top of the retorts, in which carbonization occurs, and charcoal will be taken continuously from the bottom, the process requiring from two to two and a half hours.

#### **Detail Work Unfinished.**

The drivers and the retorts, the largest and most important pieces of equipment in the plant, are now nearly ready. There is, however, a vast amount of supplemental equipment, most of which is in place, but on

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD'S FORD PLANT COMPLEX

*[Compiled and Transcribed by William John Cummings]*

all of which much work remains to be done. The briquetting *[sic]* installation has still to be made.

While to the layman it appears that there is several months work still to be completed before the plant can go into production, the engineers declare that the work is much more forward than it may seem to be, and express no doubt that the plant can begin the production of chemicals about June 15.

When production begins the company will have a large daily output of charcoal for which there will be no use, at this time, at the Iron Mountain plant. While it is expected that ultimately it will be consumed in a charcoal furnace, no plans for the construction of such a plant have yet been announced. It is said that there is a ready market for the charcoal, and until such time as the company can use it in its own processes much of it will be sold.

## **Consumes All Wastes.**

The Stafford process, utilized in the carbonization building, has as its special merit the consumption of all wastes. Hog fuel and sawdust find their way into its retorts, as well as block fuel. This means, of course, that much of the charcoal product comes from the retorts in the form of dust. This dust is briquetted *[sic]* under pressure, and with use of a binder, into small bricks, those made experimentally at the plant being the size of a small biscuit. With this unit fully in operation the last of the wastes at the Ford plant will be eliminated and the company will be utilizing in one way or another all the value in the logs it hauls to its mill.

The chemical plant is designed with the purpose of minimizing labor to the greatest extent possible. The wood is handled by hand at no stage in the process, from the time it leaves the hogs and the machines form which the waste is picked up until it emerges from the retorts as charcoal.

From the condensers through which the fumes from the retorts pass, the distillates are piped back to the distillation building without human agency. The operation of the huge plant will require only some thirty men on a shift.

## **Can Increase Capacity.**

The carbonization building is so constructed that it will be possible to increase the number of drying cylinders to ten and of retorts to four, should this be necessary, and it is said to be likely that it will be done, as the present outlook is that the wastes will exceed the original estimates.

Work on the distillation building was begun early in the fall, but the erection of the carbonization building was not started until winter was well under way. It was pursued without a break through the severest weather of the winter months and surprising progress was made with it. The Worden-Allen company had the contract for the buildings in the unit, and the Badger company is installing the equipment in both the distillation and carbonization plants, the company controlling the Stafford process. While this process has been used successfully in Tennessee by the Eastman Kodak company, the Ford plant is far the most complete and modern in which it has been installed. Some idea of its extent and intricacy maybe gained from the statement that some 200 motors will be used in its operation.

Steel work for a shipping building for the chemical unit is now going up.

*The Iron Mountain News*, Iron Mountain, Dickinson County, Michigan, Volume 4, Number 72 [Saturday, July 5, 1924], page 2, columns 1-4

## **Latest Method of Wood**

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD'S FORD PLANT COMPLEX

*[Compiled and Transcribed by William John Cummings]*

## ***Distillation Employed At Ford Chemical Unit***

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### **Huge Plant Practically Ready But Start Of Op- erations Is Delayed**

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When at last the wheels begin to turn in the huge chemical unit of the Ford Motor company plant, now fast nearing completion, Iron Mountain will hold the attention of the industrial and chemical world. Then for the first time science's newest method of carbonization will be used on an extensive scale; and the Ford Motor company will have taken a step that will probably mean its ultimate independence of outside markets so far as chemicals used in the manufacture of automobiles is concerned and may put the Ford company into the field as a competitive seller of fuels and chemicals.

The vast amount of waste wood from the body plants makes possible this step. Every scrap of wood – even sawdust will be utilized. After the wood has passed through the chemical plant and has been reduced to charcoal, this latter product probably will be offered on the market for fuel or used in the manufacture of steel.

Not only will every substance of which wood is composed be extracted and made valuable, but even the gases will not be wasted. Huge pipes, leading from the chemical unit back to the boiler room[,] will drain these off and bring them to the power house where they will be used as fuel.

#### **Almost A Kin To Perpetual Motion[.]**

The Ford method of carbonization, a highly complicated and yet simple method, is almost akin to perpetual motion. External

heat is applied to the wood only as it passes through the huge tubes in which it is dried; when it reaches the retorts in which the carbonization process is completed the heat generated by the wood itself carries on and completes the carbonization.

The scraps of wood are conveyed to the chemical plant in three sets of drying tubes, each with a capacity of 70 cords in 24 hours. Gas is conveyed to these tubes at a temperature ranging from 400 to 450 degrees. It is this gas which is used in drying the wood preparatory to carbonization and which furnishes the heat for the latter process.

The rotary dryers into which the wood is conveyed in this preliminary step consist of three sets of two tubes each. Each tube is 100 feet in length. The green wood from the body plants enters the upper tube of each set and is drawn through. Then it reaches the end of the first tube it is carried back through the lower one and then is conveyed to the retorts to go through the carbonization process.

#### **Moisture Is Eliminated.**

The upper tube of each set of dryers has two compartments – the gas chamber and the wood container. In this tube the heated gas does not come into direct contact with the wood. The scraps are whirled forward in the rotating cylindrical inner compartment until they have reached the end of the tube. They are then carried down to the second, and lower tube where the hot gas mingles with the wood. During the four hours required to convey a scrap of wood back through the second tube – the passing of a single scrap through both tubes requires eight hours – the moisture in the wood is virtually eliminated and the heat which later will carry on the carbonization process is furnished.

Upon release from the rotary dryers the scrap of wood, with the moisture reduced to

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD’S FORD PLANT COMPLEX

*[Compiled and Transcribed by William John Cummings]*

approximately one and one-half per cent, is conveyed to the retort room. There it first enters what is termed a barrel valve. Each of the three sets of dryers leads to a single retort. This makes it possible to shut off any one set of dryers, or retort, for repair, without affecting the entire system.

The barrel valve consists of a large barrel-shaped container in which is a device not unlike the old-fashioned water wheel. The wood from the dryer enters this whirling, airtight valve and as the latter revolves, is dropped into the retort. By use of the barrel valve, it was explained, none of the heat carried by the wood is lost by contact with air.

Once inside the retort the carbonization process is under way. The heat gathered by the wood in passing through the dryers generates more heat. This heat – heat from the wood itself – reduces the wood to charcoal and removes from the wood every condensable and non-condensable gas. The gases rise and are carried off into condensers, of which each retort is equipped with four, and the charcoal drops to the bottom of the retort.

## **“Bite Off” Charcoal.**

At the base of the retort are grates, similar to huge teeth, or claws. These open and close, “biting” off a layer of charcoal nine inches in thickness at each movement. The charcoal then is carried away for storage preparatory to the manufacture of briquettes, or whatever other use may be made of it.

The gases upon entering the condensers are reduced to liquids. The non-condensable gases are then drawn off and carried to the boiler houses for use as fuel.

Each of the four condensers, with which each retort is equipped, has an approximate capacity of 25 cords of wood every 24 hours.

Conveyed by pipes from the retort room to the refining plant, the liquids first enter the primary stills, of which there are seven. In these the tar and numerous other products are removed and the partly refined alcohol moves on into five lime lee stills. In these a second distillation process removes the crude wood alcohol and leaves the acetone acids. The alcohol then is ready for the refinery, while the acetones move on into a new and different department.

The acetones are conveyed on into huge tub-like containers, of wood, of which there are three, and which are known as neutralizing tubes. There they are mixed with lime. The lime[,] acting as a neutralizer, prepares the product for its final reduction into the form of calcium acetate.

## **Crystalize Product.**

Upon leaving the neutralizing tub the calcium acetate is still in the liquid state. The reducing of this to a crystal – “mud” it is called – is the next step. This is accomplished by means of endless belts. The calcium acetate, conveyed from the tub to the belts, six in number, clings to the belt. It is carried along and is dried by air pressure created by fans. When the product has been carried the length of the fan chamber and return it is ready for removal and storage in large bins.

Calcium acetate in the crystal, or “mud” form, later is mixed with grain alcohol and distilled, producing a chemical used in the manufacture of imitation leather and other upholstering materials.

The crude wood alcohol, meantime, has been going through a series of distillations in the refinery. In the refinery the liquid passes through concentrators which remove many of the impurities, and thence into the refining stills. Here, at different boiling points, various impurities turn into vapors and are drawn off. When this last distilling process has been completed the

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD’S FORD PLANT COMPLEX

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wood alcohol has been freed from all impurities and is ready for use.

## **Plant Thoroughly Clean.**

The chemical unit is spic and span from top to bottom. The floors, of concrete, are built with a sufficient pitch to drain off water and are kept clean and shiny and a corps of painters keep the interior walls all “dressed up”.

Although virtually all machinery and equipment is now installed in the chemical unit, and apparently all is practically ready for its opening, none would venture a guess as to the probable date of its going into operation.

“That [*sic* – *That’s*] something we don’t even know in this office,” it was declared. “We have been expecting it to go into operation from time to time, but the date of opening invariably has been postponed. We really do not know.”

Officials were no less “mum” on the question of what effect the opening of the chemical unit would have on the labor situation. No information could be obtained regarding the possibility of the Iron Mountain plant returning to a six-day week, as has been reported.

*The Iron Mountain News*, Iron Mountain, Dickinson County, Michigan, Volume 4, Number 257 [Thursday, February 12, 1925], page 1, column 3

## **BUILD STORAGE SILOS AT PLANT**

**Will Be Used for Char-  
coal Manufactured in  
Chemical Division**

Construction work has been started at the Ford plant on a series of seven huge silks which will be used for the storage of the charcoal briquettes manufactured in the chemical plant, according to an official statement late yesterday.

The contract for the foundation has been awarded to the Worden-Allen company, which has begun the work. The contract for the superstructure, however, has not yet been let.

The silos will be located adjacent to the chemical plant buildings. Each one of the huge storage bins will be 22 feet in diameter and 71 feet high. They will be of concrete and steel construction.

One of the silos will contain transport buckets and other apparatus and a second will be used for grading. Charcoal will be stored in the remaining five, each of which will have a capacity of 150 tons.

Underneath the silos a runway for railway cars will be provided, facilitating loading. A stairway to give access to the top of the silos will also be built.

At the present time the charcoal product of the chemical plant is being sold but it is expected that eventually it will be employed in the making of charcoal iron, tests conducted several months ago at furnaces in Ashland, Wis., having proven successful.

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## **FORD CHARCOAL BRIQUETTES Ford Plant Kingsford**

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*The Iron Mountain News*, Iron Mountain, Dickinson County, Michigan, Volume 4, Number 12 [Thursday, April 24, 1924], page 1, columns 1-2

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD'S FORD PLANT COMPLEX

[Compiled and Transcribed by William John Cummings]

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all of which much work remains to be done. The briquetting [*sic*] installation has still to be made.

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*The Iron Mountain News*, Iron Mountain, Dickinson County, Michigan, Volume 4, Number 72 [Saturday, July 5, 1924], page 2, columns 1-4

## ***Latest Method of Wood***

## ***Distillation Employed At Ford Chemical Unit***

### **Huge Plant Practically Ready But Start Of Op- erations Is Delayed**

When at last the wheels begin to turn in the huge chemical unit of the Ford Motor company plant, now fast nearing completion, Iron Mountain will hold the attention of the industrial and chemical world. Then for the first time science's newest method of carbonization will be used on an extensive scale; and the Ford Motor company will have taken a step that will probably mean its ultimate independence of outside markets so far as chemicals used in the manufacture of automobiles is concerned and may put the Ford company into the field as a competitive seller of fuels and chemicals.

The vast amount of waste wood from the body plants makes possible this step. Every scrap of wood – even sawdust will be utilized. After the wood has passed through the chemical plant and has been reduced to charcoal, this latter product probably will be offered on the market for fuel or used in the manufacture of steel.

Not only will every substance of which wood is composed be extracted and made valuable, but even the gases will not be wasted. Huge pipes, leading from the chemical unit back to the boiler room[,] will drain these off and bring them to the power house where they will be used as fuel.

### **Almost A Kin To Perpetual Motion[.]**

The Ford method of carbonization, a highly complicated and yet simple method, is almost akin to perpetual motion. External

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD’S FORD PLANT COMPLEX

*[Compiled and Transcribed by William John Cummings]*

heat is applied to the wood only as it passes through the huge tubes in which it is dried; when it reaches the retorts in which the carbonization process is completed the heat generated by the wood itself carries on and completes the carbonization.

The scraps of wood are conveyed to the chemical plant in three sets of drying tubes, each with a capacity of 70 cords in 24 hours. Gas is conveyed to these tubes at a temperature ranging from 400 to 450 degrees. It is this gas which is used in drying the wood preparatory to carbonization and which furnishes the heat for the latter process.

The rotary dryers into which the wood is conveyed in this preliminary step consist of three sets of two tubes each. Each tube is 100 feet in length. The green wood from the body plants enters the upper tube of each set and is drawn through. Then it reaches the end of the first tube it is carried back through the lower one and then is conveyed to the retorts to go through the carbonization process.

## **Moisture Is Eliminated.**

The upper tube of each set of dryers has two compartments – the gas chamber and the wood container. In this tube the heated gas does not come into direct contact with the wood. The scraps are whirled forward in the rotating cylindrical inner compartment until they have reached the end of the tube. They are then carried down to the second, and lower tube where the hot gas mingles with the wood. During the four hours required to convey a scrap of wood back through the second tube – the passing of a single scrap through both tubes requires eight hours – the moisture in the wood is virtually eliminated and the heat which later will carry on the carbonization process is furnished.

Upon release from the rotary dryers the scrap of wood, with the moisture reduced to

approximately one and one-half per cent, is conveyed to the retort room. There it first enters what is termed a barrel valve. Each of the three sets of dryers leads to a single retort. This makes it possible to shut off any one set of dryers, or retort, for repair, without affecting the entire system.

The barrel valve consists of a large barrel-shaped container in which is a device not unlike the old-fashioned water wheel. The wood from the dryer enters this whirling, airtight valve and as the latter revolves, is dropped into the retort. By use of the barrel valve, it was explained, none of the heat carried by the wood is lost by contact with air.

Once inside the retort the carbonization process is under way. The heat gathered by the wood in passing through the dryers generates more heat. This heat – heat from the wood itself – reduces the wood to charcoal and removes from the wood every condensable and non-condensable gas. The gases rise and are carried off into condensers, of which each retort is equipped with four, and the charcoal drops to the bottom of the retort.

## **“Bite Off” Charcoal.**

At the base of the retort are grates, similar to huge teeth, or claws. These open and close, “biting” off a layer of charcoal nine inches in thickness at each movement. The charcoal then is carried away for storage preparatory to the manufacture of briquettes, or whatever other use may be made of it.

The gases upon entering the condensers are reduced to liquids. The non-condensable gases are then drawn off and carried to the boiler houses for use as fuel.

Each of the four condensers, with which each retort is equipped, has an approximate capacity of 25 cords of wood every 24 hours.

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD’S FORD PLANT COMPLEX

*[Compiled and Transcribed by William John Cummings]*

Conveyed by pipes from the retort room to the refining plant, the liquids first enter the primary stills, of which there are seven. In these the tar and numerous other products are removed and the partly refined alcohol moves on into five lime lee stills. In these a second distillation process removes the crude wood alcohol and leaves the acetone acids. The alcohol then is ready for the refinery, while the acetones move on into a new and different department.

The acetones are conveyed on into huge tub-like containers, of wood, of which there are three, and which are known as neutralizing tubes. There they are mixed with lime. The lime[,] acting as a neutralizer, prepares the product for its final reduction into the form of calcium acetate.

## **Crystalize Product.**

Upon leaving the neutralizing tub the calcium acetate is still in the liquid state. The reducing of this to a crystal – “mud” it is called – is the next step. This is accomplished by means of endless belts. The calcium acetate, conveyed from the tub to the belts, six in number, clings to the belt. It is carried along and is dried by air pressure created by fans. When the product has been carried the length of the fan chamber and return it is ready for removal and storage in large bins.

Calcium acetate in the crystal, or “mud” form, later is mixed with grain alcohol and distilled, producing a chemical used in the manufacture of imitation leather and other upholstering materials.

The crude wood alcohol, meantime, has been going through a series of distillations in the refinery. In the refinery the liquid passes through concentrators which remove many of the impurities, and thence into the refining stills. Here, at different boiling points, various impurities turn into vapors and are drawn off. When this last distilling process has been completed the

wood alcohol has been freed from all impurities and is ready for use.

## **Plant Thoroughly Clean.**

The chemical unit is spic and span from top to bottom. The floors, of concrete, are built with a sufficient pitch to drain off water and are kept clean and shiny and a corps of painters keep the interior walls all “dressed up”.

Although virtually all machinery and equipment is now installed in the chemical unit, and apparently all is practically ready for its opening, none would venture a guess as to the probable date of its going into operation.

“That [*sic* – *That’s*] something we don’t even know in this office,” it was declared. “We have been expecting it to go into operation from time to time, but the date of opening invariably has been postponed. We really do not know.”

Officials were no less “mum” on the question of what effect the opening of the chemical unit would have on the labor situation. No information could be obtained regarding the possibility of the Iron Mountain plant returning to a six-day week, as has been reported.

*The Iron Mountain News*, Iron Mountain, Dickinson County, Michigan, Volume 4, Number 257 [Thursday, February 12, 1925], page 1, column 3

## **BUILD STORAGE SILOS AT PLANT**

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**Will Be Used for Char-  
coal Manufactured in  
Chemical Division**

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# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD’S FORD PLANT COMPLEX

*[Compiled and Transcribed by William John Cummings]*

Construction work has been started at the Ford plant on a series of seven huge silks which will be used for the storage of the charcoal briquettes manufactured in the chemical plant, according to an official statement late yesterday.

The contract for the foundation has been awarded to the Worden-Allen company, which has begun the work. The contract for the superstructure, however, has not yet been let.

The silos will be located adjacent to the chemical plant buildings. Each one of the huge storage bins will be 22 feet in diameter and 71 feet high. They will be of concrete and steel construction.

One of the silos will contain transport buckets and other apparatus and a second will be used for grading. Charcoal will be stored in the remaining five, each of which will have a capacity of 150 tons.

Underneath the silos a runway for railway cars will be provided, facilitating loading. A stairway to give access to the top of the silos will also be built.

At the present time the charcoal product of the chemical plant is being sold but it is expected that eventually it will be employed in the making of charcoal iron, tests conducted several months ago at furnaces in Ashland, Wis., having proven successful.

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## **FIRE DEPARTMENT Ford Plant Kingsford**

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*The Iron Mountain News*, Iron Mountain, Dickinson County, Michigan, Volume 3, Number 110 [Saturday, August 18, 1923], page 5, column 1

## **FORD PLANT HAS NEW FIRE TRUCK**

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### **Specially Built Machine Received Here; to Build Station**

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A new Ford fire truck has been received at the Ford plant. It is equipped with two 25-gallon chemical tanks, 750 feet of two and one-half inch hose, and 200 feet of chemical hose. The truck was made especially for the Ford Motor company.

The plant fire department when organized will consist of five men who will work in the vicinity of the fire station. When an alarm is turned in the first man to reach the fire hall will drive the truck and the others will get on the machine and accompany it to the blaze, according to Fire Marshall Lee Lalonde. There will be five men on each shift. A fire hall will soon be built between the body plant and the sawmill, it was said.

In addition to these firemen every department has a number of men picked out who will take care of their department in case a fire breaks out. There is 5,400 feet of two and one-half inch hose on the company's property and also 7,000 feet of one and one-quarter inch hose. Another truck similar to the present one will be received later.

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## **FORD HYDRO-ELECTRIC PLANT/FORD DAM West End of Woodward Avenue Menominee River Kingsford**

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD'S FORD PLANT COMPLEX

*[Compiled and Transcribed by William John Cummings]*

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*The Iron Mountain Daily News*, Iron Mountain, Dickinson County, Michigan, Volume 1, Number 259 [Monday, February 13, 1922], page 1, column 6

## ***Exploratory Work Begun Today At Ford Dam Site***

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### **Churn Drill Will Be Used To Determine Location Of Bed-Rock**

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Exploratory work was begun today at the approximate site of the Ford dam, which will be thrown across the Menominee river at a point tentatively set just above the pumping station. The purpose of the exploration is to locate the depth and character of the bed-rock [*sic – bedrock*] which will determine the exact point at which the dam will be constructed.

Test-pits [*sic – Test pits*] will be used where it is believed that the bed-rock [*sic – bedrock*] is only a short distance below the surface. Where it is deeper, a churn drill, similar to a well drilling outfit, will be employed. This work is only exploratory, it is pointed out, and the results will have to be known before the plans for the dam can be completed.

The character of the bed-rock [*sic – bedrock*] will regulate the height of the dam to some extent through regulating its location. The flooded area will also be affected. How many acres will be flooded has not been ascertained, but it is thought that the bulk of the flooded land will be on the Wisconsin side of the river, where the banks are not so high nor abrupt as on the

Michigan side. No estimate as to the number of horsepower to be generated has yet been made public.

There will be no start on the actual construction work until spring, but it is hoped to get it underway within a few months.

Meanwhile, installation of the third steam turbine is proceeding. Delay in receipt of the steam connecting pipes hindered the process somewhat, but it is hoped to get the machine into operation this week. Like the first unit installed, this machine is a product of the Ford factories, and is rated at 1,000 kilowatts. The second machine is a Westinghouse of 500 kilowatts, formerly in service at the Detroit plant and will probably be used as an auxiliary after the third machine is running.

The first machine in the new body plant will start turning about the last of this month, R.V. Dudley announced today, as soon as the lumber, which is now in the dry-kilns, is ready for working. A large percentage of the machinery for the first unit is already installed, about half of it being new, and the other half being brought from the Detroit plant. Touring car parts will be turned out first, according to present plans.

*The Iron Mountain News*, Iron Mountain, Dickinson County, Michigan, Volume 3, Number 170 [Monday, October 29, 1923], page 2, columns 6-7

## **EXTEND AVENUE TO SITE OF DAM**

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### **Ford Motor Company Awards Contract to Clifford Bridges**

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD’S FORD PLANT COMPLEX

[Compiled and Transcribed by William John Cummings]

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Woodward avenue, part of the boundary line between the city city [sic] and Breitung township, is being extended from the corner of Cleveland avenue, Kingsford Heights, to the Ford dam, the work being done by Clifford Bridges, contractor who was awarded the job by the Ford Motor company.

A large crew of men is already employed on the job, which is to be completed this winter. The avenue will extend to the edge of the river and will make the dam site easily accessible by road.

The extension is three-fourths of a mile long and will be 30 feet wide. The road is to be given an eight-inch coating of gravel. Camps are being erected to house the men employed on the work.

*The Iron Mountain News*, Iron Mountain, Dickinson County, Michigan, Volume 4, Number 60 [Monday, June 30, 1924], page 1, columns 6-7; page 2, column 1

## ***Ford Dam Is Last Word In the Development of Hydro-Electric Power***

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### **Installation at Menominee River Combines Utility With Beauty; Generators Ready to Serve Plant With 11,000 Horsepower**

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The Menominee river, woodsmen say, is paved with logs – unseen reminders of a day gone by when the hills and valleys re-

echoed to the roar of the big drives being piloted to the mills by nimble and daring lumberjacks. But though history has claimed that era and the river is no longer valued as an artery of transportation, the utility of the stream that wends its way past Iron Mountain has not been lost.

The expansion of railroad facilities and the extension of logging operations into deep woods far removed from the river banks spelled the end of the famous drives, but in relinquishing the task of bearing on its back the burden of millions of feet of timber the river has been turned to a mightier responsibility – that of furnishing power. And the latest achievement in this respect is the new Ford hydro-electric plant which is now practically completed.

#### **The Romance of Power.**

There is something romantic and picturesque in man's harnessing of the forces and materials of nature to supply power so that he may accomplish great things. He has graduated slowly up through the scale of power development but as time passes his progress accelerates. The power that he originally furnished with his hands be [sic – he] obtained later through the use of oxen. Then he spread sails to the winds and devised the water wheel and as his education and ability to think increased he discovered the capture and employment of steam. Electricity followed and the last word in the economical generation of this mighty force is by chaining rivers and streams. Perhaps the day will come when this method will be replaced by the extraction of power from the air, now a dream of science. But whatever may come, this is the day of hydro-electric power.

Within a few hours the water wheels on three great generators will be revolving at the rate of 120 turns per minute and supplying 11,000 horsepower to the Ford

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD’S FORD PLANT COMPLEX

*[Compiled and Transcribed by William John Cummings]*

plant. This will mark the culmination of two years of planning and a year of construction work.

## **Largest on River.**

The Ford dam and generating station is the largest power development on the Menominee river. Its output is larger than that of the Peninsular Power company’s dam because it not only has the same water that is available at Twin Falls but, in addition, is the beneficiary of the volume supplied by the Pine river, which flows into the Menominee between the two stations. The Ford hydro-electric plant is drawing the attention of engineers all over the country. In it is incorporated the most modern conception of water power development and this is combined with a beauty of architecture and fittings that is perhaps unparalleled.

The dam itself – a gigantic block of concrete more than 30 feet deep and studded with 10 huge iron gates that weigh nine tons each – extends across the river a distance of 240 feet. The power house at the eastern end is 119 feet long while a wing, or core wall, on the Michigan side is 175 feet long and on the Wisconsin side measures 125 feet. Figures often are confusing but in this instance they may aid the imagination in realizing the size of the project when it is known that 18,620 cubic yards of concrete weighing 78,204,000 pounds entered into its construction.

## **Preliminary Test Completed.**

Part of the power plant has been in use for a short time furnishing 1,000 horsepower. And by the end of the week or early next week the whole will be operating. Preliminary tests have been completed. The three huge generators, rated at 3,500 horsepower or 3,000 kilowatts [*sic – kilowatts*] each, were put through a rigorous pace and withstood the strain without faltering. It is expected that the plant will

develop as high as 11,000 horsepower, bringing the total power resources of the Ford plant here, including the two steam units, to approximately 15,000 horsepower.

The contract for building the dam was held by the Stone & Webster company, of Boston. It required a year to do the work by the result has been well worth the effort. In this instance, Henry Ford has not only harnessed the river to do this [*sic – his*] bidding helping to turn the wheels of industry but has added beauty to the task by spending a huge sum in just “polishing” the structure.

Men who understand the operation of hydro-electric plants are credited with saying that in selling this current to the public in competition with a similar station an ordinary concern could not conduct the Ford installation at a profit because of the investment made in beautifying it.

## **The Power House.**

The power house, from river bed to roof, is approximately 70 feet high. In the bottom are located three large chambers through which the water flows to reach the water wheels. The wheels are connected by thick heavy shafts with the generators on the floor above. The generators are mounted on dome like [*sic – dome-like*] structures having a diameter of about 15 feet. They are spaced at equal intervals in a high large room that is airy and light. The walls are painted a soft tan with green trimming while the floor is inlaid with red tile imported from England. Such trappings as wash bowls are of marble and at one side is a white tile and marble room containing shower baths for the employes [*sic – employees*].

In a large room adjacent to the generating room and located on the upside of the river the water pours into the water wheel chambers. There are three conduits and in the event that something goes wrong and repairs are necessary a huge iron gate,

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD'S FORD PLANT COMPLEX

*[Compiled and Transcribed by William John Cummings]*

carried by a crane, can be slid in front of any of the openings, like the lid on an opened chalk box, and shut off the water.

An interesting feature of the operation of the plant is the automatic control of the generators so that their speed remains constant. These controls, operated by oil, are connected by plungers with the iron arms that open and shut the circular butterfly valves surrounding the water wheels. The butterfly valves consist of leaves of metal that overlap like the petals on a rose. The intersections are opened to permit the water to reach the wheels. Should the flow of water vary the oil control automatically regulates the aperture in the valves so that the speed of the generators remains constant.

## **Back up [*sic* – *Up*] Water.**

The task of backing up the water until it reaches a head of about 30 feet has about been finished. This required considerable time and had to be done slowly inasmuch as if it were to be attempted all at once and no water permitted to flow through the dam, power plants below, such as that at the Hydraulic Falls and the Kimberly-Clark mill at Niagara[,] would suffer for lack of water.

Water held in check by the Ford dam will flood land as far up the river as the Peninsular Power dam at Twin Falls. It must not be raised higher, however, than the tail race of the Twin Falls station for then it would reduce the power capacity of the Peninsular station by diminishing the height the water falls there. Hundreds of acres of land have been flooded by the Ford backwater. Miniature Cowboy lake, northeast of the dam and the spot where Henry Ford, Thomas Edison and Harvey Firestone camped a year ago, has become part of a much larger body of water.

In attempting to purchase land that would be flooded the Ford

**(Continued on page two.)**

## **Ford Dam Is Last Word In River Power**

**(Continued from page one.)**

Company met with opposition from some property owners who, it is said, demanded an exceptionally high price because it was the Ford company purchasing. To surmount this obstacle, the hydro-electric project was organized as a public utility corporation and condemnation proceedings are underway against the property.

### **Flumes Control Height.**

So far as is possible a head of 30 feet of water will be maintained at the dam. The height above this point will be regulated by means of two large flumes through which the water races at terrific speed from the top to the bottom of the dam and is emitted amidst a dense cloud of spray on the lower side. The gates to control the flow from this flume are operated electrically from inside the power house. The flumes will be utilized to carry away the excess of water not needed in the power house.

In addition there are the 10 master gates, each individually controlled by its own hoisting device on top of the dam structure. These will permit the water to pass through over the spillways but will [*sic* – *will*] be used only occasionally, as in the case of flood water or perhaps ice jams.

### **Less Power During Floods.**

A peculiar point not generally realized is that less power will be secured from the dam during extremely high or flood water than when the river is normal. This is due to the fact that the power extraction depends upon the height the water falls. In flood water there is a large excess passed

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD’S FORD PLANT COMPLEX

*[Compiled and Transcribed by William John Cummings]*

through the dam that raises the level on the lower side and consequently reduces the fall.

The head of water at the Ford dam is equal to the drop or downward slope of the river from the Peninsular Power dam. In this distance the river falls 30 feet so that the surface of the water at the Ford dam will be on a level with the surface at the tail race of the Peninsula [*sic – Peninsular*] dam.

Power from the Ford dam will be transported to the sawmill and body plants through a system of underground conducts [*sic – conduits – ?*]. These wires will carry 2,300 volts of direct current to a substation, now being built at the plant, that will transform the current into alternating and step down the voltage to 220, which is used by the machines.

## **Not Too Much Power.**

And while there may be those who believe that with three power units Henry Ford is supplying his plants here with more than they need, it may be interesting to know that new machines recently added consuming [*sic – consume*] all of the 1,000 horsepower now being obtained from the dam. And the entire plant is not yet equipped while building operations are still going forward. Indeed, the probabilities are that the company will find it necessary in time to instal [*sic – install*] more power supplying equipment.

Finishing touches are now being put to the dam. Painters are completing their work and odds and ends are being cleaned up. It is planned to beautify the site, which is reached over Woodward avenue, by sodding the ground, putting in cement walks and doing other landscape work.

When all is completed, the dam will be a sight well worth seeing. In addition to its commercial purpose it has individual features that place it in a class by itself. It

represents an investment of well over a million dollars but an investment that will be returned ten-fold in the development of cheap power to operate hundreds of machines and provide jobs for thousands of men.

*Iron Mountain News*, Iron Mountain, Dickinson County, Michigan, Volume 5, Number 42 [Friday, May 29, 1925], page 6, column 1

## **LANDSCAPE WORK BEAUTIFIES PLANT**

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### **Ford Hydro-Electric Unit Placed In Scenic Setting**

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The premises surrounding the Ford hydro-electric plant, located west of the Ford factory, have been transformed into a beautiful garden.

Although the planting of trees and shrubbery has not yet been completed, the landscape work is practically finished and gives the electrical plant a wonderful setting.

The driveway leading to the main door of the plant is marked off with a concrete curb. The road makes a complete circle, with a heart design in the center. Hedges have been planted on each side of the driveway.

Balsam, spruce and cedar shrubbery has also been planted in various designs around the plant and trees have been placed along the river banks, both on the Michigan and Wisconsin sides. Numerous flower beds have also been planted and it is expected that they will soon be in bloom.

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD’S FORD PLANT COMPLEX

*[Compiled and Transcribed by William John Cummings]*

The plans for the work were drawn up by E.G. Kingsford, official of the Ford Motor company, and Wesley S. Lutey, landscape expert from Ishpeming, who is now in the employ of the company.

Mr. Lutey is also supervising the beautifying of the lawn at the Ford clubhouse on Woodward avenue and also has charge of landscape work on the grounds of Ford homes, occupied by employes *[sic – employees]*.

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## FORD EMPLOYEE ACCIDENTS

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## ESTABLISHMENT OF FORD PLANT IN KINGSFORD

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## FORD AIRPORT West End of Woodward Avenue Kingsford

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## FORD POWER PLANT Ford Plant Kingsford

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## FORD STATION WAGON PRODUCTION

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## BUNK HOUSES Ford Plant Kingsford

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*The Iron Mountain News*, Iron Mountain, Dickinson County, Michigan, Volume 3, Number 196 [Wednesday, November 28, 1923], page 6, columns 1-2

## ERECTING BUNK HOUSES FOR MEN

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### Ford Putting Up New Buildings; Electric Sign on Stacks

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New bunk houses which are being constructed by the Ford company at the plant here will be ready for occupancy in a few weeks. All the modern equipment of an up to date house will be found in the structures, which will be equipped with electric lights, steam heat and shower baths. The name bunk house is perhaps misleading in this instance as ordinarily bunk houses are thought of as the buildings of a lumber camp, where all the sleeping apparatus is in one room and double deckers are used. This, however, is not the kind of a building Mr. Ford is constructing for his employes *[sic – employees]*. Instead of dormitories there will be separate *[sic –*

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD’S FORD PLANT COMPLEX

*[Compiled and Transcribed by William John Cummings]*

*separate]* rooms each housing one or two cots. There are eight new houses under construction, one of which will be used as a mess hall. Employees *[sic – employees]* of the company will be accommodated *[sic – accommodated]* here at a nominal cost. Mr. E.G. Kingsford, of the Ford company stated. The buildings will accommodate 200 men.

## **Transferring Machines.**

At the present time an over production exists at the home plant in Detroit, and some of the machinery is being transferred to this plant. These are the reasons why approximately 300 men were released during the last two weeks. Officials at the company state that the new machinery is arriving every day and is installed as soon as possible, but it will take some time until all of the transferred equipment will be ready for operation. The company expects to hire many of the men again as soon as conditions permit, which will be in the near future.

Boilers are being installed in the new chemical plant which will be used by Ford to extract different chemicals from wood. An example of the economy practiced by Ford’s institutions is the fact that while people in general get eight dollars’ value out of a ton of coal *[sic – coal]*, Ford will make a similar ton of coal produce \$13.56.

A huge electric sign easily read from passenger coaches and other parts of the city, *[sic]* will be erected between the smoke stacks of the new power house. The name “Ford Motor Company” will be inscribed on it.

Due probably to a misunderstanding regarding the statement that the boilers being installed in the new power house would not stand the strain of a 500 per cent overload they would be subject to, officials today declared that the person making this statement had reference to the old boilers.

Officials said that one of the new boilers would generate more steam than four of the old ones.

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## **FORD PLANS FOR CHARCOAL IRON FURNACE**

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*Iron Mountain News*, Iron Mountain, Dickinson County, Michigan, Volume 5, Number 19 [Saturday, May 2, 1925], page 1, column 2

## **OUTSIDERS LOOK OVER FIELD HERE**

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### **Interest Is Stimulated By Ford Furnace Announcement**

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Announcement by the Ford Motor company that it will build a charcoal iron furnace in Iron Mountain has had the effect of stimulating the interest of the outsiders, according to real estate men.

Since the announcement, which has received wide publicity, a number of persons who purchased property in the city or suburban districts but had made no use of it have come here and are now making plans for the erection of buildings.

Others interested by speculative possibilities are looking over the field.

The furnace announcement has relieved to large extent the feeling of anxiety that existed as to the future of the Ford plant here. This anxiety, although having no

# DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – KINGSFORD’S FORD PLANT COMPLEX

*[Compiled and Transcribed by William John Cummings]*

basis in fact, was fed by rumors until it reached the proportions of a real spectre.

The furnace announcement, however, was given out by Ford officials who stated that the community need have no fear of any serious reduction in the plant working force, which is now about 5,500.

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