Frankfort, Michigan

1871 *Frankfort*, Lake Michigan.—As soon as the harbor piers at this place are completed a Pier-light will be required, and is estimated for under the head of "Pier Lights."

1873. ——. *Frankfort pier-head light.*—A pier-head light has just been erected at this place. A keeper's dwelling, at a cost of $5,000, is recommended.

1874 588. *Frankfort pier-head light, Lake Michigan, Michigan.*—This light was finished in August, and lighted for the first time on October 15, 1873.

1880 647. *Frankfort, Lake Michigan, Michigan.*—The beacon was moved out 261 feet to the end of the pier and new elevated walk built for the same distance.

1884 710. *Frankfort Pierhead, Frankfort Harbor, east shore of Lake Michigan, Michigan.*—An oil-shed and a boat-house, with a crane and winch for hoisting the boat, were erected on the inner end of the pier; the tower was repainted and a lightning-conductor was attached to it. A severe storm destroyed 50 feet of the elevated walk, badly damaged 170 feet more of it, and covered the pier with drift-wood. The walk was put in good order, and various other repairs were made. The work of moving the beacon to the end of the extended pier, a distance of 195 feet, and continuing the elevated walk to it, was commenced.

An. Rep. 1885. 776. *Frankfort Pierhead, Frankfort Harbor, east side of Lake Michigan, Michigan.*—The beacon was moved 195 feet farther out on the pier and the elevated walk extended to it. The elevated walk was badly damaged for 32 feet by the schooner Amsden, of Chicago, which collided with it on parting her tow-line in a storm. The damage was immediately repaired under the direction of the keeper.

An. Rep. 1887. 727. *Frankfort pier-head, south pier, Frankfort Harbor, Lake Michigan, Michigan.*—The elevated walk was extended shoreward 200 feet, and the shed for oil and other supplies was moved 45 feet nearer the shore, and minor repairs were made.

1891. 979. *Frankfort Pierhead, Lake Michigan, Michigan.*—A fog bell is needed as an adjunct to the pierhead light in thick weather when the light can not be seen. The Board does not favor the use of bells for such purposes as a rule, but it makes an exception in this case for obvious reasons. It is estimated that a bell with proper striking apparatus, to be operated by machinery, can be adjusted to the tower at a cost not exceeding $1,000, and it is recommended that an appropriation of that amount be made for this purpose. Some repairs were made.

1892 1195. *Frankfort Pierhead, Lake Michigan, Michigan.*—The following recommendation, which was made in the Board's last annual report, is renewed:

> A fog bell is needed as an adjunct to the pierhead light in thick weather, when the light can not be seen. The Board does not favor the use of bells for such purposes as a rule, but it makes an exception in this case for obvious reasons. It is estimated that a bell with proper striking apparatus, to be operated by machinery, can be adjusted to the tower at a cost not exceeding $1,000, and it is recommended that an appropriation of that amount be made for this purpose.*

Frankfort Mich.

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1892 *The appropriation asked in the foregoing paragraph was made in the sundry civil appropriation act approved on August 5, 1892. The bell will be established as soon as practicable.

1893 *1272. Frankfort Pierhead, Lake Michigan, Michigan.*—A small wooden structure, measuring 10 feet by 16 feet in plan, was erected for use as a watchroom on the south pier. The act approved August 5, 1892, appropriated $1,000 for the establishment here of a fog bell. On April 14, 1893, the work was commenced, and on June 15 it was completed and the signal put in operation. The boathouse, which one of the Toledo, Ann Harbor and Northern railway boats ran into, was rebuilt and received a new hoisting crane.

1894 *1314. Frankfort Pierhead, Lake Michigan, Michigan.*—The elevated walk, which was slightly damaged, on November 25, by a boat engaged in dredging the harbor, was repaired.

1488. Frankfort Pierhead, Lake Michigan, Michigan.—The light tower and fog-bell tower were moved to the outer end of the south pier on

Ninth District.

1897 November 16, 1896; new foundations were built, and the towers were placed and firmly bolted down. Some 600 running feet of elevated walk was built. A rear range light was established on January 22, 1897, in the center of the elevated walk, about 600 feet in rear of the pierhead beacon, and the elevated walk was widened at that point.

1899 *403, 404. Frankfort pierhead range, Lake Michigan, Michigan.*—The elevated walk was renewed for some 280 feet. The old fog bell striking apparatus, formerly at Chicago, was thoroughly repaired and shipped to Frankfort for use there. Various repairs were made.

1900 *415, 416. Frankfort pierhead range, Lake Michigan, Michigan.*—The fog-bell striking apparatus was removed and shipped to St. Joseph Light-House depot, and the repaired apparatus from Chicago Pierhead was installed in its place. An engine was purchased, measures were taken for its installation in the tower, and the work will be completed soon. A life line, consisting of 360 feet of five-eighths-inch galvanized wire rope and 15 iron posts was erected on the pier for the protection of the keeper in passing to and from the pierhead light.

1901 *434–435. Frankfort Pierhead Range, Lake Michigan, Michigan.*—A prism of a lens lantern was shaken out during the gale of January 19, 1901. A 270-degree lens lantern was placed until this lens lantern was repaired. Some 100 feet of elevated walk, damaged by the storm of March 20, 1901, was renewed. A coal bin was built. A fog-signal was established here on May 1, 1901. It consists of a 2-horsepower oil engine, with a blower and blower siren and a copper trumpet. The apparatus is located in the lower portion of the pierhead beacon, and arranged to give blasts of 7½ seconds duration, with 7½ seconds silent interval. As the signal has no duplicate, the fog bell is retained in position. The lower part of the beacon was inclosed for the reception of the fog-signal apparatus, and 101 feet of the elevated walk was rebuilt. Some 156 running feet of walk on the pier in the rear of the oil house was renewed.

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1902 *464–465. Frankfort pierhead range, Lake Michigan, Michigan.*—A set of improved fifth-order lamps was installed. A 270° one-day lens lantern was shipped to the station to replace a damaged one. The elevated walk, which was damaged by the schooner *Ralph Campbell*, was repaired and the bill for repair was collected by United States district attorney and deposited to the credit of the Treasurer of the United States. The boathouse, which was located on private land, was removed and placed on the inner end of the north pier, a foundation having been put in to receive it. A platform was laid in front of it. A boat crane was erected. Various repairs were made.

1903 C&L *488–489. Frankfort pierhead range, easterly shore of Lake Michigan, Michigan.*—There are here two lights and a fog-signal, but no keeper's dwelling nor a site for one. It is estimated that a site can be bought and a suitable double dwelling for the two keepers can be built for $6,500, and the Board recommends that an appropriation of this amount be made therefor.

1905 *488–489. Frankfort pierhead range, Lake Michigan, Michigan.*—The following, which appeared in the Board's annual report for 1903 and 1904, is renewed:

> There are here two lights and a fog-signal, but no keepers' dwelling nor a site for one. It is estimated that a site can be bought and a suitable double dwelling for the two keepers can be built for $6,500, and the Board recommends that an appropriation of this amount be made therefor.

1906 *480–481. Frankfort pierhead range, Lake Michigan, Michigan.*—A 2-horsepower oil engine was installed to provide a duplicate plant. The fog bell was discontinued and taken to the storehouse at Milwaukee. Various repairs were made.

The following recommendation, made in the Board's last three annual reports, is renewed:

> There are here two lights and a fog-signal, but no keepers' dwelling nor a site for one. It is estimated that a site can be bought and a suitable double dwelling for the two keepers can be built for $6,500, and the Board recommends that an appropriation of this amount be made therefor.

1907 *488–489. Frankfort Pierhead Range, Lake Michigan, Michigan.*—Condemnation proceedings are to be commenced to obtain a site for a light-keeper's dwelling for the use of this light-station.

Frankfort Pierhead range, Michigan, and Ahnapee (Algoma) Pierhead range, Wisconsin, light-stations.—Bids have been invited for furnishing the necessary materials for the construction of brick oil houses at these two light-stations.