

## Shadows Cast by Skyscrapers

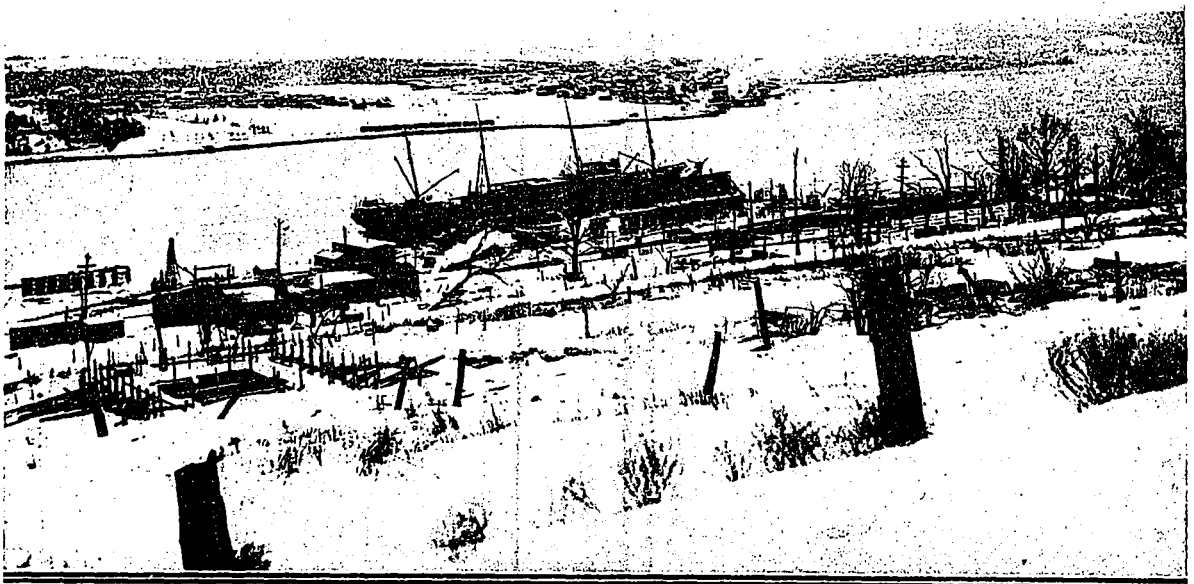
At noon, on the shortest day of the year, the shadows of different skyscrapers envelope large areas, states *Building Management*. The Adams Express Building, New York, which is 424 feet high, casts a shadow 875 feet in length; the Equitable Building, which is 493 feet high, one 1,018 feet in length; the Singer Tower which is 540 feet high, one 1,127 feet in length; and the Woolworth Tower, which is 791 feet high, one 1,635 feet in length.

The effect of skyscrapers casting shadows from a sixth to a third of a mile in length on surrounding property is well illustrated in the case of the Equitable Building. Its shadow which at noon on December 21 is about one-fifth of a mile in length, completely envelops an area of 7.59 acres. The ground area of the Equitable Building is only 1.14 acres.

The shadow cuts off all sunshine from the Broadway facade of the United States Realty Building, which is twenty-one stories high. The New York Title & Mortgage Company Building, fourteen stories high, and the Washington Life Insurance Building, nineteen stories high, are both completely shaded. The south side of the Singer Tower is shaded to a height of twenty-seven stories. The nearest part of the City Investing Building, 400 feet away, is in shadow for twenty-four of its twenty-six stories. Even part of the New York Telephone Building north of Cortland Street is shadowed by the Equitable Building.

Cedar Street, the street immediately north of the Equitable Building, has an average width of 34 feet between Broadway and Nassau Street. The height of the Equitable Building is fourteen and a half times the width of this street. On a north and south street of this width in New York, uniformly improved on both sides with buildings having a height equal to that of the Equitable Building, only 9.31 per cent. of the windows would receive any direct sunshine at noon on the shortest day in the year. On north and south streets only the windows nearest the top for a distance equal to 1.35 times the width of the street would receive direct sunshine at noon on December 21 at New York (40 degrees North Latitude). The windows in the first thirty-four stories nearest the ground would receive absolutely no direct sunlight. Direct sunlight would only enter those windows in the four stories nearest the top. Not a single window within 447 feet of the street level would receive a ray of direct sunshine.

The Equitable Building is, of course, an extreme case. But even in much lower buildings a considerable number receive absolutely no direct sunshine at the winter solstice. Up to a height equal to 1.35 times the width of such a street all the windows receive some sunshine. If the street, however, is improved with buildings one and one-half times the street width in height, only 90 per cent. of the windows obtain direct sunshine.



SHIP-BUILDING INDUSTRY FOR DEVASTATED PORT OF HALIFAX.

The picture overlooks Halifax Harbor in a section which was ruined by the great explosion of December, 1917. The buildings along shore are the beginnings of a new government shipyard. The town of Dartmouth is seen in the distance.