From this territory much hay is now coming on the market where scarcely any came up to two years ago.

The northwest hay acreage and production will increase slowly but steadily from year to year.

	Acreage.	Yield Tons.	Total Tons.	Price per Ton.	Total Value at Farm.
1903—					
Minn...	858,000	1.84	1,577,732	$6.61	$10,442,029
N. Dak..	148,962	1.18	175,775	4.64	815,596
S. Dak..	191,291	1.45	277,372	4.63	1,284,232
	1,198,253		2,032,879		$12,541,857
1904—					
Minn...	867,136	1.74	1,508,817	$5.51	$8,313,582
N. Dak.	156,410	1.57	245,564	4.21	1,033,824
S. Dak..	202,768	1.43	289,958	4.24	1,229,422
	1,226,314		2,044,339		$10,576,828
1905—					
Minn...	913,000	1.89	1,725,570	$6.25	$10,784,812
N. Dak.	170,000	1.58	268,600	4.55	1,222,130
S. Dak..	224,000	1.43	320,320	4.45	1,425,424
	1,307,000		2,314,490		$13,432,366

POTATOES

This large and important crop is not usually taken into account in estimating the wealth of the northwest, yet in the three states it runs to big figures, both in total production and in money value. No crop produced here shows so wide a variation from year to year, in the statistical fundamentals. For instance the average yield of potatoes last year, in North Dakota, was no less than 111 bushels per acre, which, taking into account the bad places as well as the good, is remarkably high. In the same season South Dakota averaged 102 bushels, and Minnesota 96; but, in the year before that, the Minnesota average fell to 64 bushels, and 89 for South Dakota was the best shown that season.

The farm value also varies greatly, and as conditions outside the territory here covered are of main influence in shaping values, it follows that a large or small crop in the three states does not necessarily mean high or low prices. Indeed the factor of northwest production, relative to price, enters less into consideration in the potato crop than in any other.

On Aug. 1 the general condition of the crop was 10 per cent lower than in 1904, due principally to excessive rainfall in some important producing districts, but later in the season conditions improved.

The principal difference in the general situation this year is the lighter production in other states. Last year there were exceptionally large yields in many competing states. Iowa, Nebraska, Kansas and Wisconsin produced freely, and some of these states, ordinarily buyers of potatoes, had them to sell in large quantities. Hence the marked difference, and the decline in value of $2,121,783 in a crop larger by 6,058,319 bushels.

This year conditions are more nearly normal, there is a big crop and a farm value far below the extreme prices of the short year of 1903, yet well above the low levels of the year following.

The potato crop of Minnesota, North Dakota and South Dakota, will bring in $7,241,798 this year to the farmers of the three states.

	Acres Harvested.	Bushels per Acre.	Total Bushels.	Value per Bu.	Total Value at Farm.
1903—					
Minn...	140,051	64	8,960,960	$0.61	$5,466,186
N. Dak.	24,200	84	2,032,800	.48	975,744
S. Dak..	32,437	89	2,886,893	.54	1,558,922
	196,688		13,880,653		$8,000,852
1904—					
Minn...	137,215	102	13,995,930	$0.29	$4,058,820
N. Dak.	24,926	111	2,766,786	.32	885,372
S. Dak..	33,086	96	3,176,256	.30	952,877
	195,227		19,938,972		$5,897,069
1905—					
Minn...	155,000	95	14,725,000	$0.34	$4,996,500
N. Dak.	29,800	96	2,860,800	.36	1,029,888
S. Dak..	35,800	97	3,472,600	.35	1,215,410
	220,600		21,058,400		$7,241,798

RYE

Rye, the least important of the grain crops of the northwest, produces nevertheless a good revenue, and this year the crop represents a money value of $1,206,118. Winter rye was not up to expectations, or early indications, this year, and this pulled down the total by considerable. Summer rye did better on the whole.

The rye area increased in all three states, and the yields on the average were above last year. The money value fails to show the gain that might be expected to follow, as the markets are lower, and the farmers unable to realize the figure of last year, except in cases of the production of something exceptionally choice.

Minneapolis is growing into importance as a rye market, and it is believed this will operate to hold the acreage as high as it appears this year, with probability of moderate increase from year to year.

	Acres Harvested.	Yield per Acre.	Bushels.	Value per Bu.	Total Value at Farm.
1903—					
Minn.....	95,063	18.4	1,749,159	$0.45	$787,122
N. Dakota.	23,338	15.7	366,407	.43	157,555
S. Dakota.	34,890	20.2	704,778	.40	281,911
	153,291		2,820,344		$1,226,588
1904—					
Minnesota	93,162	17.7	1,648,967	$0.64	$1,055,339
N. Dakota.	22,401	18.5	414,474	.60	248,684
S. Dakota.	33,843	16.5	558,410	.57	318,294
	149,406		2,621,851		$1,622,317
1905—					
Minnesota	95,100	18	1,711,800	$0.45	$670,310
N. Dakota.	26,980	19.5	526,110	.44	231,488
S. Dakota.	35,210	20.1	707,721	.43	304,320
	157,290		2,945,631		$1,206,118

MINNEAPOLIS CHAMBER OF COMMERCE.

THE WORLD'S GREATEST FLOUR MILLS ARE IN MINNEAPOLIS

Minneapolis Flour Famous All Over the World for Its Purity

After a year of comparative depression, the Minneapolis milling industry is again on an upward grade. The coming year is full of promise for the local mills, and there is strong reason to believe that the record for gross output will be equaled if not exceeded, and that flour milling will return to the same satisfactory basis it enjoyed four or five years ago.

The principal difficulties in the past year have been the scarcity of good milling wheat, and the diminution of the export trade. During the "crop year" since Sept. 1, 1904, the mills of Minneapolis consumed 61,464,000 bushels of wheat, and turned out 11,896,195 barrels of flour. In the previous crop year the mills consumed 58,859,000 bushels of wheat, which made 13,079,860 barrels of flour. In other words, while grinding 2,605,000 bushels more wheat than in the previous year, the mills fell behind in production to the extent of 1,183,665 barrels of flour. The prevalence of rust last year in a large part of the spring wheat belt injured the quality of the grain, much of it being light weight and shrunken. Wheat of the best milling qualities was so scarce that it became extremely high in price, and the local mills were not able to compete effectively in the world markets. For years the conditions of the export trade had been unfavorable to Minneapolis, due largely to the discriminating railroad rates in favor of the wheat and against flour. Since 1900 the export trade has fallen off somewhat each year, and last year the accumulated troubles of the millers practically killed the export business. In 1900, the high water mark, they exported 4,702,485 barrels out of the 15,082,725 produced. In the calendar year of 1904 the export business dropped to 1,741,120, and the output fell correspondingly to 13,652,735 barrels. During the crop year of 1904-1905, just closed, the exports were only 1,552,959 barrels, and the total output 11,896,195.

Outlook Is Rosy.

This is an unpleasant story, but the Minneapolis millers have put the past behind them and are looking forward with confidence to new trade conquest under new conditions. There is no doubt now about the size and general quality of the spring-wheat crop for 1905. While the price may rule high, it will not be an abnormal price, due to local scarcity, but will be in line with the world markets. The Minneapolis mills will have an abundant supply of high-grade milling wheat, and will be in a position to go after the foreign trade with product and prices right. The railroads, also, have been led to see the injustice formerly done the mills, and to a great extent have corrected the discrimination formerly made against the manufactured article. The mills of the northwest are nearer on an equal basis than they have been for years, compared with those on the seaboard and in foreign countries. There is no perfect substitute for patent flour made from the hard spring wheat, and during the coming year it is expected to win back a large share of the lost export trade. It is already beginning to come, and from the character of reports from abroad the millers are confident that larger things are to follow.

Small Beginnings.

The water power of St. Anthony Falls made Minneapolis an inevitable manufacturing center. The vast wheat fields of the northwest, producing the finest milling wheat in the world, furnished the raw material, and this city has grown in flour manufacturing with the growth of agriculture in Minnesota and the Dakotas. The first mills were located here when wheat was raised in small patches along the Mississippi river, and it is tradition that some of the first wheat ground was shipped up the river by boat. The United States government built a primitive mill at the falls soon after Fort Snelling was made a military post, in 1821, in order to grind flour for the soldiers' rations in what was then a wilderness outpost. This mill was abandoned in a few years. The first mill under private ownership was built on the East Side in 1851 by R. C. Rogers, but it was small and cut little figure. In 1854 the first commercial mill was erected by John Rollins, John Eastman and R. P. Upton. The mill was a small affair compared with the monarchs of today, and its outfitting would provoke a smile on the face of a modern miller, but it was the real beginning of the industry here, and bought wheat from the first farmers roundabout, grinding it for the trade and selling at wholesale. Several other small mills were started within the next few years, but the industry did not reach any great proportions before the war. Minneapolis was too isolated from the world to have any more than a local market. There were no railroad facilities, the wheat supply was small, and in 1858, it is said, it cost $2.25 to transport a barrel of flour from Minneapolis to Boston.

In 1856 the water power on the west bank of the river passed into the hands of a new corporation, the Minneapolis Mill company. In the following year William D. Washburn, a young lawyer, moved to Minneapolis, and soon accepted an offer to become agent for the company. Under his management, distinguished by energy and foresight, the company prospered, and after the civil war, when railroad building began to open commercial possibilities to the city, the company took rapid strides forward. Railroads opened fertile land to settlement, splendid crops of wheat were raised and transported to Minneapolis, railroad outlets to the east gave it a market, and the milling industry advanced rapidly in importance and prosperity. In 1866 the beginnings of the Washburn-Crosby Milling company were made by General C. C. Washburn of Wisconsin, and in 1869 Charles A. Pillsbury came to Minneapolis and took a leading part in the business. The original concern of Charles A. Pillsbury & Co. became later the Pillsbury-Washburn Flour Mills company. During those years other names appeared which later became well known in the industry, for instance, the names of Loring, Christian, Crosby, Dunwoody and Barber. In the ten years after the war the business of flour milling was revolutionized. For one thing, the invention of improved farm machinery gave an impetus to wheat raising, which became the leading industry of the northwest. The first primitive machines were followed by harvesters and self-binders and improved threshing machines. The cost of raising wheat was lessened, and the mills found available a swiftly increasing supply of grain at prices that enabled them to enter the world markets. At the same time invention made rapid progress in the line of milling machinery, and Minneapolis kept in the front rank of this movement. Minneapolis patent flour became more famous every year, and found a readier market. The progressive men at the head of the industry here did not hesitate to tear out new machinery and replace it with a later pattern which would produce a finer grade of flour. This spirit remains today, and has kept Minneapolis pre-eminent in the market for patent flours.

The terrible explosion in 1878 was an event from which subsequent things dated. The havoc wrought by that mysterious disaster was quickly repaired, but its memory lived. Modern invention has made the accumulation of the dangerous dust impossible.

First Export Trade.

It was in the same year, 1878, when the export trade in flour first began to develop, with its splendid possibilities. William H. Dunwoody went abroad at the suggestion of General C. C. Washburn, who had faith in the possibilities of the foreign market, and the result was that in that year a beginning was made, 107,183 barrels being exported. This trade developed rapidly, and three years later more than a million barrels were sent abroad. For a time export business more than kept pace with the advance of the domestic market, and it grew almost every year until 1900, when the temporary decline set in, a decline which the trade believes has been checked. In the time since the creation of the export trade, the production of the local mills has increased about fifteen fold. The following table shows graphically the progress of the trade in twenty-seven years, the Minneapolis mill output and the export shipments being given for each year in barrels:

Year—	Output.	Exports.
1878	940,786	107,183
1879	1,551,789	442,598
1880	2,051,840	799,442
1881	3,142,972	1,181,322
1882	3,175,910	1,201,631
1883	4,046,220	1,343,105
1884	5,317,672	1,805,876
1885	5,221,243	1,834,544
1886	6,168,000	2,288,500
1887	6,574,900	2,650,000
1888	7,050,680	2,197,640
1889	6,088,865	1,953,815
1890	6,988,630	2,107,125
1891	7,877,947	3,038,065
1892	9,750,470	3,337,295
1893	9,377,635	2,877,277
1894	9,400,335	2,370,736
1895	10,581,635	3,080,935
1896	12,874,890	3,717,265
1897	13,625,205	3,942,630
1898	14,232,595	3,904,390
1899	14,291,780	4,009,135
1900	15,082,725	4,702,485
1901	15,921,880	3,879,905
1902	16,260,105	3,410,405
1903	15,582,785	3,081,115
1904	13,652,735	1,741,120
Totals	236,838,429	67,097,454

Is a Selling Center.

The importance of Minneapolis in the grain trade is not limited by local production. In Minnesota, the Dakotas and Iowa, territory tributary to this city and producing spring wheat, there are many small mills, whose total production is more than half that of the Minneapolis plants. Most of these reach out for more than local trade, and to get in touch with the general market, they have offices, or at least representatives in Minneapolis. A considerable part of the product is assembled and shipped from here, and the rail shipments from this city are nearly always larger than the product of the Minneapolis mills, altho this city itself is a big consumer of the local mill output. The following table shows rail shipments, both domestic and export, by calendar years since 1876:

Year—	Shipments.	Year—	Shipments.
1876	1,000,676	1891	7,562,185
1877	935,544	1892	9,368,784
1878	940,786	1893	8,950,769
1879	1,551,789	1894	9,025,640
1880	2,051,840	1895	10,973,713
1881	3,142,974	1896	12,757,185
1882	3,175,910	1897	13,390,573
1883	4,046,910	1898	14,262,761
1884	5,317,672	1899	13,957,798
1885	5,040,931	1900	14,954,866
1886	5,757,687	1901	15,995,427
1887	6,216,143	1902	16,818,150
1888	6,776,689	1903	16,227,299
1889	6,071,171	1904	14,129,785
1890	6,693,501		
		Total	237,104,139

Big Three Great Advertisers.

Organization and advertising have done much to make Minneapolis the great flour city of the world. Three great corporations operate and own mills producing nearly 95 per cent of the total capacity of the twenty-two mills now clustered about St. Anthony Falls. Their great campaigns for publicity have kept them at the forefront the country over, and a healthy rivalry among the three corporations has only emphasized the pre-eminence of Minneapolis. The five mills of the Pillsbury-Washburn Flour Mills company have a total daily capacity of 31,150 barrels. The five mills of the Washburn-Crosby company have a capacity of 27,913 for a day's run, and the eight mills of the Northwestern Consolidated Milling company have a total daily capacity of 20,000 barrels. The total capacity of the Minneapolis mills is 82,765 barrels a day, and if it were possible for the mills to run steadily each working day of the year they would record a total output of nearly 26,000,000 barrels, or nearly ten millions greater than the largest annual record up to date.

A list of mills now operated, with the daily capacity of each, is as follows:

FILLSBURY-WASHBURN FLOUR MILLS CO.

	Capacity in Brls.
Pillsbury "A"	15,000
Pillsbury "B"	7,000
Anchor	3,500
Palisade	4,000
Lincoln	1,650
	31,150

NORTHWESTERN CONSOLIDATED MILLING COMPANY.

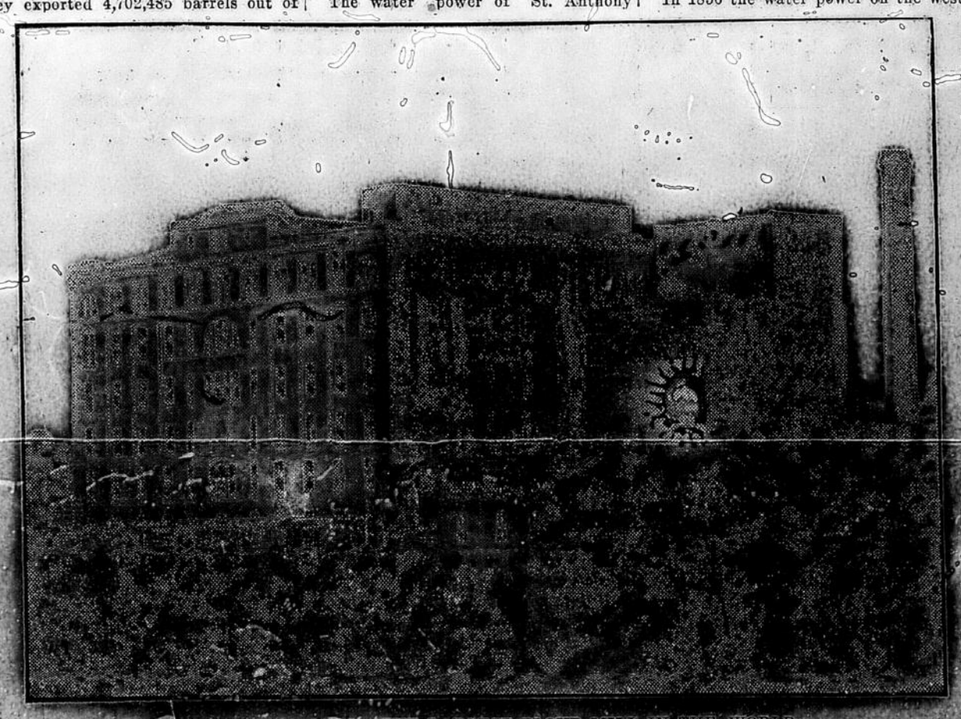
"A"	3,800
"B"	2,500
"C"	2,500
"D"	2,700
"E"	2,000
"F"	3,800
"G"	1,700
"H"	1,000
	20,000

THE WASHBURN-CROSBY COMPANY.

Washburn "A"	10,337
Washburn "B"	3,100
Washburn "C"	8,500
Washburn "D"	2,915
Washburn "E"	2,964
	27,915

INDEPENDENT MILLS.

Cataract, Barber Milling company	1,200
Phoenix, Phoenix Milling company	600
Dakota, National Milling company	600
Christian, George C. Christian	2,000
	4,400
Total capacity	82,765



PILLSBURY "A" MILL, THE LARGEST FLOUR MILL IN THE WORLD.

MILLING DISTRICT FROM ABOVE FALLS IN WINTER, 1903.