

Messrs John Draper and Sons' St Leonards Mill

by Mildred Cookson, The Mills Archive, UK

Milling journals of the past at The Mills Archive



An item in *The Miller* (March 3rd, 1913) introduced the Cooper's auto-Puro plansifter system which had been recently been installed by milling engineer GW Cooper of Romsey, Hampshire at the St Leonards Mills near Hastings. The milling business at St Leonards was started in 1849 by the father of the then head of the firm, when a good windmill was the first step in a successful milling career. The windmill in question was a substantial wooden smock mill, originally at Croft Road Hastings and moved to nearby Silverhill in 1838.

It was taken over by William Draper in 1850 and destroyed by fire seventeen years later along with the large stock of wheat and flour. The following year the windmill was rebuilt by John Upfield and for the following 79 years it dominated the skyline of Silverhill remaining in the hands of the Draper family until 1946. The mill was sadly demolished in 1966.

John Draper succeeded his father but was too progressive to be satisfied for long with the capacities of a windmill, so in 1887 he built the mills situated close to West St Leonards railway station and installed a roller plant using the latest lines of the time. Always striving for perfection, he several times had his mills remodelled and extended and took on his two sons, Bernard and William Norman, into the partnership with him.

The basement of the mill contained the ordinary line shafts for driving the double row of rolls on the floor above, as well as the

elevator bottoms. In 1913 a number of the elevators were out of use as the new system had made them redundant. On the first floor were two lines of roller mills; these had not been altered except the feeds to them had been rearranged.

The fluting on the brake rolls was a special design by Mr

FEBRUARY 3, 1913. *THE MILLER* xvii

G. W. Cooper's PLANSIFTER
— Auto-Puro —

SYSTEM

Highest Percentage of Patents.

—
SIMPLE TO RUN.
LITTLE SPACE.
—

NO
SCALPERS,
CENTRIFUGALS,
REELS OR
PURIFIERS USED.

Complete Plants
.. from ..
1 to 80 Sacks per Hour.

G. W. COOPER
Milling Engineer,
ROMSEY,
HANTS.

Illustration shows two Plansifters on my Auto-Puro Plansifter System doing the whole of the work of 20 Machines, which they have replaced, thereby effecting a saving of 40 h.p.

Advertisement in 1913 for The Cooper Plansifter System

The business at St. Leonards Mill is an old one, having been started in 1849 by the father of the present head of the firm at a time when a good windmill was, it would seem, the first step in a successful milling career. Mr. John Draper succeeded his father, but was too progressive to be satisfied for long with the capacities of a windmill and in 1887 he built his present mills, which are situated close to West St. Leonards railway



MR. BERNARD DRAPER.



Photo by [D. J. Eddy, St. Leonards.]
MR. JOHN DRAPER.

stations, and installed a roller plant upon the then latest lines. Always striving after perfection

breaks, four reductions, "A," "B," "C" and "D" and scratch rolls "X." The whole of the



MR. WILLIAM NORMAN DRAPER.

breaks with a special machine which deals with it previous to its entering the first break rolls, which thereby are enabled to release 67 per cent. of stock. The remaining 33 per cent. going to the succeeding break, was strikingly broad and un-cut-up bran stock and the second break rolls left very little to be done by the third break, which is also the last break. The roller process is divided into three

The Draper father and two sons in 1913



Silverhill windmill being demolished in 1966

Cooper to suit the requirements of his system. The wheat was treated on a system of three breaks with a special machine which dealt with it prior to it entering the first break rolls. This enabled them to release 67 percent of the stock. The remaining 33 percent, going to the succeeding break, was described as "strikingly broad and un-cut-up bran stock". The second break rolls left very little to be done by the third and final break.

The roller process was divided into three breaks, four reductions and scratch rolls. All the purifiers and centrifugals, with the exception of one of the latter used as a bran finisher, had been removed and replaced by two double plansifters supplied by Mr Cooper. The three breaks were scalped dusted and graded, each on a section of a plansifter. This then meant that the first break stock was sifted, with the overtails going to the second break.

Branny semolina was separated and sent to rolls.

The lower sieves dressed the semolina, middlings and dust thoroughly free from break flour and then passed them on to three pairs of 30x10-inch rolls. The second and third break stocks were treated much in the same manner, only that the grading and distribution of the granular materials was varied in accordance with their quality and size. The earlier purifier floor was now quite free from machinery, and had only elevators and spouts passing through. This meant that good falls were obtained from sifter to rolls without the need of worms. Mr Cooper was said to emphasise that the two plansifters were doing the work previously done by 16 reels and centrifugals and they took up very little room. All semolina, middlings were quite free of flour and thoroughly dusted.



Silverhill windmill in full working order in the 1930s



The planisifter floor

The plansifters ran without the least vibration and showed the internal brushes were working properly and keeping the meshes of the silk free. The guaranteed capacity of the mill was six sacks-per-hour, but it often was turning out six and a half quite easily.

The system of rolls and plansifters was thoroughly exhausted and the finish of all spouting in the mill “left nothing to be desired”. Motive power for the mill was provided by a pair of suction gas engines, which ensured a great saving in the energy required.

St Leonard’s Mills were the fifteenth mill where Mr Cooper had erected his auto-puro system, although previous ones employed centrifugal dressing. They were soon to be followed by others in various parts of the country on this same system.



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