M. SEIBERLING.

Machines for Making Straw-Boards.

No. 212,155. Patented Feb. 11, 1879.

Fig. 1

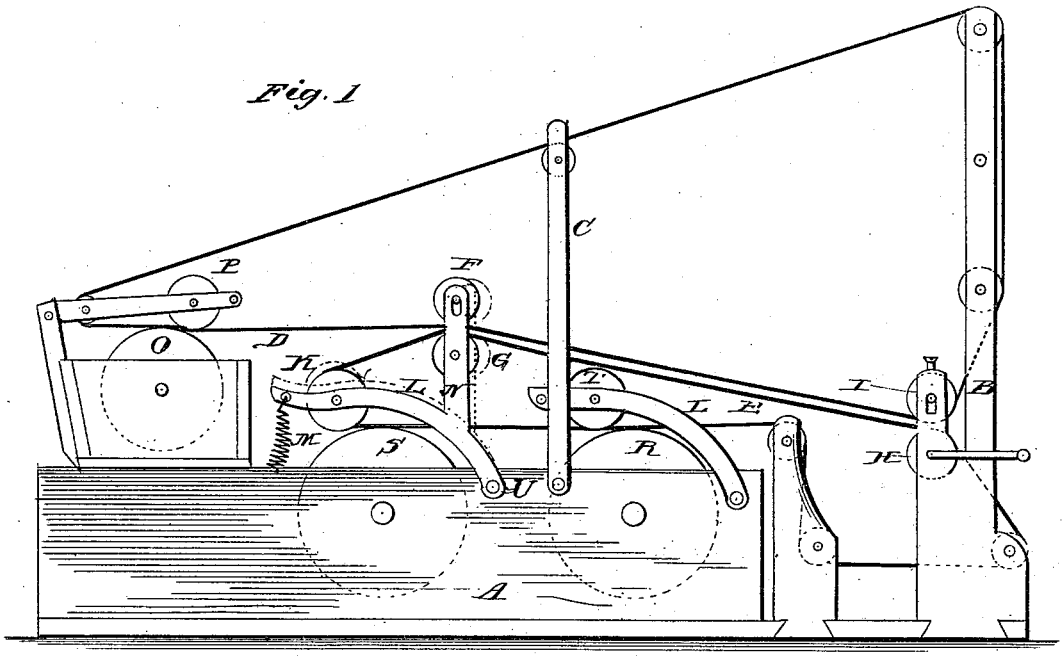
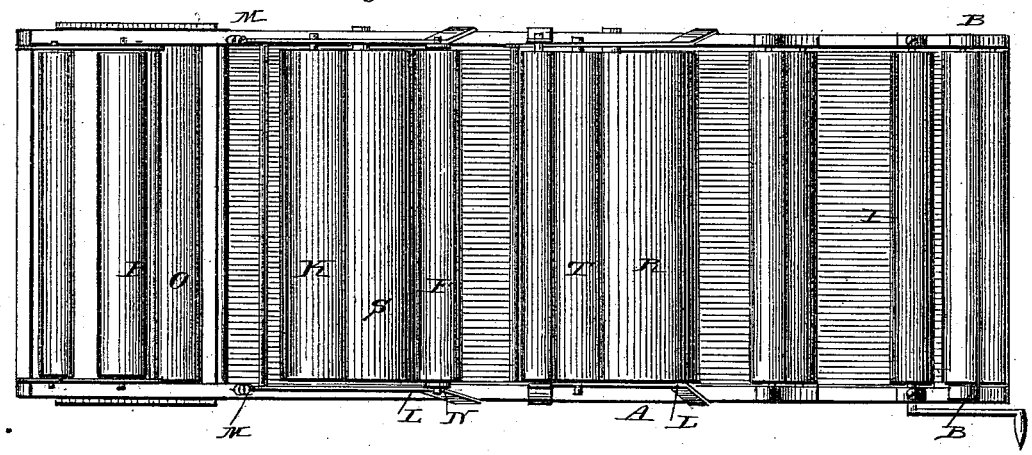


Fig. 2.



Witnesses.

Fred. G. Dieterich

George. Binkenburg

Inventor

Monroe Seiberling

By Daniel Breed, Atty.

UNITED STATES PATENT OFFICE.

MONROE SEIBERLING, OF AKRON, OHIO, ASSIGNOR TO AKRON STRAW BOARD COMPANY, OF SAME PLACE.

IMPROVEMENT IN MACHINES FOR MAKING STRAW-BOARDS.

Specification forming part of Letters Patent No. **212,155**, dated February 11, 1879; application filed September 10, 1878.

To all whom it may concern:

Be it known that I, MONROE SEIBERLING, of Akron, in the county of Summit and State of Ohio, have invented an Improvement in Machines for Making Straw-Boards; and I do hereby declare the following to be a full and correct description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of a straw-board machine having my improvements. Fig. 2 is a top view of the same, the two endless aprons being removed.

In straw-board machines having two endless aprons or felts for uniting two webs of pulp, if the aprons and pulps meet and run some distance together before reaching the pressing-rollers, air is entrapped or gathered in the wet pulp, and the paper is thus made streaked by the action of the air.

The object of my invention is to remedy this difficulty.

My invention consists of the arrangement of two endless aprons and the rollers of a straw-board or paper machine for uniting two webs of pulp, in such manner as to prevent the aprons and two webs of pulp from meeting until they reach the pressing-rollers, and then bring the aprons to meet as they enter the pressing-rollers, which will thus drive back or expel all the air from the pulp, and leave the straw-board or paper without streaks; and, secondly, in mounting the coucher of the lower apron on the same frame with the pressing-rollers, so that the coucher and pressing-rollers will swing up and down at the same time on this hinged frame.

My improvements may be applied to machines of different general construction. Therefore I need not give a full description, but will proceed to describe the features which I claim.

The box or frame A has at one end a standard, B, and near the middle another standard, C.

The two endless aprons D and E may be arranged upon rollers, as shown in Fig. 1, and set in motion by the crank-roller H, or any other suitable means.

The upper apron receives its web of pulp from the making-roller O, and is held down by the coucher P, and the lower apron receives its web of pulp from the two making-rollers R and S, working in connection with the two couchers T and K. Now, the two aprons meet at the pressing-rollers F and G, and are kept separate until they reach these rollers.

By this arrangement the two aprons or felts carrying webs of pulp are prevented from meeting, and thus entrapping or gathering air, which is liable to make the straw-board or paper streaked.

The two aprons being thus set apart, as they approach the pressing-rollers no air can be entrapped or gathered in the webs of pulp carried on these aprons. The two pressing-rollers F and G, coming thus suddenly to press upon both aprons and the two webs of pulp thereon, will drive back all the air, which has a free escape from the pulp. This will prevent any air from passing on in the pulp and giving streaks in the straw-board, which streaks are very objectionable and not uncommon with similar machines constructed on the old plans.

The swinging frame or arms L carry the coucher or roller K, and the arms N are made part of this frame L, and carry the pressing-rollers F and G. This frame (or the arms L) is pivoted to the frame A at pivots U, so as to swing up and down the coucher K and the pressing-rollers F G, thus moving together or at the same time with the frame L and arms N. Two springs, M, gently draw down the frame L.

By this arrangement the coucher can be raised without first raising the top press-roller, which could not be done if the press-rolls were supported separate from the coucher-frame.

By my improvements two webs of wet pulp may be brought together without any difficulty from gathering or entrapping air, thus preventing the liability of streaks in the straw-board or paper, as above described.

Having thus described my invention, I claim—

The arrangement of the cylinder felt or apron E and the upper felt or apron, D, the making-cylinders O, R, and S, and the two press-rollers I H, the couchers P, K, and T, and the two small press-rollers F and G, so

that the surface of each felt or apron carrying a web of pulp to form a sheet of straw-board or thick paper will not come together until they reach the press-rollers, for the purpose of preventing air from being entrapped or gathered between the two felts, and thus making the paper water-streaked and uneven, as set forth.

The above specification of said invention signed and witnessed at Akron, Ohio, this 6th day of September, A. D. 1878.

MONROE SEIBERLING.

Witnesses:
J. F. SEIBERLING,
H. W. INGERSOLL.