

# DOMINION MECHANICAL & MILLING NEWS

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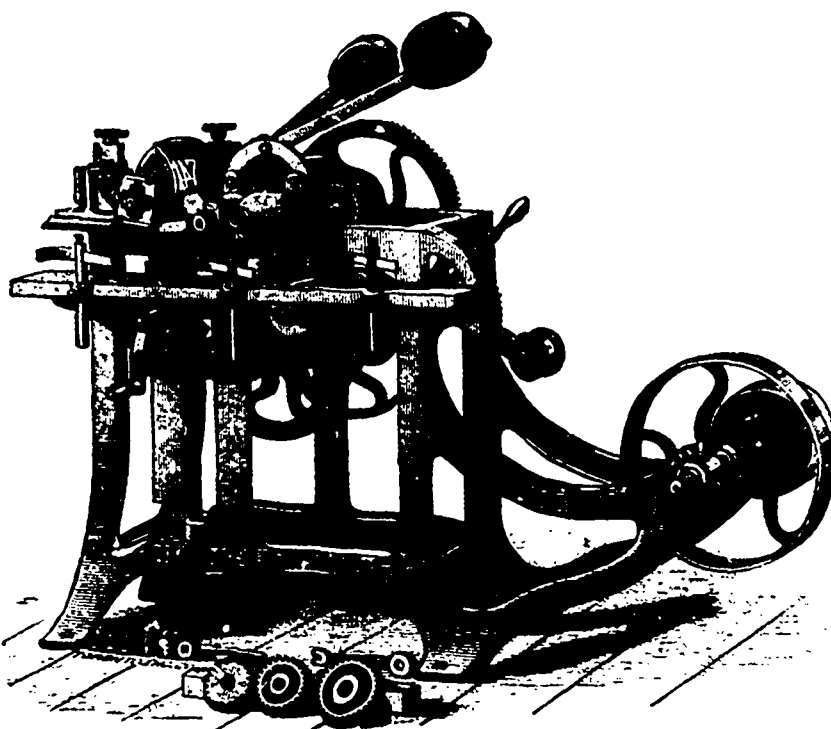
## NEW IMPROVED SIX INCH MOULDER.

WE present on this page an illustration of an improved six inch moulder or sticker, in the construction of which some new features have been introduced. The frame is so constructed as to give solidity to the working parts, and good long belts. The table is raised and lowered by a handle in front and drops 15 inches, which will be found convenient for sticking bases or other wide stuff. The head is brass, slotted on all four sides, so that any kind of bits or knives can be used. The mandrel is of steel, running in boxes lined with babbit. The frame which carries the head is moved across the table by means of a screw, enabling the operator to adjust all the parts from the front of the machine. The feed rolls form a new departure in moulding machines, there being only one shaft across the machine, and the rolls are geared close to the inside of the frame nearest to the table. The rolls are carried in yokes and weighted in the centre, insuring a parallel lift at all times. The roll in the table is geared with expansion gear, giving good strong feed when the table is at the lowest point, as well as on thinner stock. The machine has four changes of feed for working hard or soft wood. The hood or top pressure bar in front of head can be thrown over, giving free access to the head for changing or setting cutters, etc. The pressure behind the head is adjustable to any kind of stock, either bevel or square. Driving pulleys, 8½ inches diameter by 3¼ inches face. Speed, 850 revolutions per minute. The manufacturers are Messrs. Goldie & McCulloch, Galt, Ont.

## MANITOBA VS. DAKOTA.

THE damage from early frosts has been very much greater in Dakota and some of the other Northwestern States than in our Canadian Northwest. As a field for immigration, therefore, Manitoba and the Canadian Northwest is to be preferred to the Northwestern States, especially when it is considered that the proportion of Manitoba grain saved is of superior quality and brings a better price than that grown in the States.—MECHANICAL AND MILLING NEWS. "Naturally the frost did more damage in Dakota than in Manitoba, for one very plain reason, namely, that there was more wheat in Dakota than in Manitoba to be frozen. On equal areas in the two sections there was about four times as much wheat in Dakota as in Manitoba. You acknowledge a damage of from 20 to 30 per cent. in Manitoba and you will be forced to acknowledge a still greater loss when the truth can no longer be concealed. Therefore it does not by any manner of means follow that, because a frost in August found four or five times as much wheat in Dakota to freeze as it found in Manitoba, "the Canadian Northwest is to be preferred to the Northwestern States." Nor do we believe it probable that the Manitoba wheat is any better or brings any better price than the Dakota wheat, which the British millers unanimously agree in pronouncing 'the best wheat grown in the world.' Tell the truth about your frost. The concealment can do nothing but harm. In one breath you say the frost has done only a trifling damage, and in the next you urge the Manitoba farmers to diversify their crops and so make themselves comparatively independent of the early frosts. But don't try to exalt Manitoba at the expense of Dakota. The facts and achievements in the two sections

are all in favor of Dakota.—*Milling World*. Our contemporary appears not to have caught our meaning in the quoted extract. Perhaps we did not make it sufficiently clear. We desired to express the opinion that the proportion of loss, comparing acre with acre of wheat land on either side of the boundary, was greater in Dakota and Minnesota than in Manitoba. Is our contemporary prepared to prove the contrary? Furthermore, our estimate of 20 to 30 per cent. of loss on the Manitoba crop, thus far at least, appears not to have been below the mark. As to the relative quality and value of Manitoba and Dakota wheat, we refer our contemporary and our readers to the Liverpool market quotations. No. 1 hard Manitoba wheat there holds first position. Our contemporary's boast that "the facts and



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achievements in the two sections are all in favor of Dakota," is rather off-set by the statement found in another of its columns, that "the frost, smut, blight and bugs (that) wiped out 30,000,000 to 50,000,000 bushels of wheat in Dakota and Minnesota." All of which goes to show that the "facts and achievements" concerning the Northwestern States are not of such an encouraging character that the immigrant should long to reside there.

## SHORT SYSTEM MILLING.

MAKING flour is a very practical business, with which there is but little beauty, poetry or sentiment connected; none in fact, except in whatever portion the writers on the subject may see proper to enshrine it. It matters not whether the method employed or treated be on the gradual or short-system plan, the details, the practice itself, are cold and dry, and that thought brings the writer to consideration of the detailed practical workings of the short system, or at least a part of it. As has been stated, the short system of flour-making differs materially from the gradual-reduction system in the number of breaks made on the wheat. In this country the number of breaks in accepted and established gradual-reduction methods ranged from six to eight, with an upward tendency, prior to two years ago. One well-known American milling engineer had previously predicted that ten breaks would ultimately be the

standard. Whether he still adheres to that view or not is unknown; the presumption is he is willing to accept six. In order to arrive at a fair conclusion as to the reason why so many breaks were used and more advocated, we will have time to consider the effect of the system on the flour.

The gradual-reduction system was and is injurious to the color of the break-flour on account of the many treatments of the bran with corrugated rolls and wire scalpings. Each treatment or reduction wore off a part of the bran in the form of a fine floury powder that became inseparably mixed with the flour made at the same time. The supposed remedy for the evil was by many thought to be to reduce the quantity of break-flour by increasing the number of breaks and also the

middlings output. The method of handling middlings was well understood; they could be thoroughly purified and cleaned and made into first-class flour. While it may have been possible to reduce the break-flour output by increasing the number of wheat-breaks, it is quite evident the break-flour would have been in poorer condition on account of the decreased quantity of flour and increased quantity of dirt occasioned by the extra breaks and actions on the bran, and would therefore have required a larger amount of the middlings-flour to bring it up in color, consequently nothing would have been gained in favor of the entire flour output, while there was a chance for a loss in color and condition. Clear-headed men not interested in the advancement of the flour-mill-machinery-making interest could easily discern the drift of the matter and concluded the direction was wrong. Logic suggested the idea that if white and clear break-flour, which ought always to be the whitest product of the mill, can not be made by the gradual-reduction method, then why can it not be made by reversing the method? That view of the situation was all the more logical because it was

well-known that the middlings could be just as well taken care of and just as good flour made of them without reference to the quantity. A small quantity of middlings could be just as well purified, as well treated in every way and converted into just as good flour as a large quantity could.

The query then very naturally presented itself, why not reduce the number of breaks and mill to make more break-flour and fewer middlings? By doing that the quantity of fine bran-dirt would be largely reduced actually, and still more relatively. That is to say, a smaller quantity of dirt would be distributed through a larger quantity of break-flour, which would leave it much whiter than before, while the middlings-flour would remain substantially the same in color and condition, thus greatly improving the whole product. That was the germ-thought of the short-system, and whether it originally occurred as a thought or an accidental experience, it matters nothing. On that logic it was based, and on that rock founded. To make the system effective, to make it fully realize the anticipation of its projectors, new reducing or grinding conditions had to be introduced. Among them the wheat was required to be exceedingly well cleaned, a matter considered of not so much importance in gradual-reduction milling, although it should have been. Also the wheat required to be even tempered; if too dry and harsh and brittle, artificial means for toughening and tempering it were demanded.