

BLACK.—K at K 5th; P at Q Kt 5th.

White to play and mate in five moves.

No. 2. By W. H. C.

WHITE.—K at Q R 7th; Q at Q B 7th; R at K sq.; Kt at K B 3d; P at K Kt 2nd.

BLACK.—K at K Kt 5th; Q at Q 6th; B at Q Kt 7th; Kt's at K sq. and Q B 7th; Ps at K R 4th; K Kt 6th; K. B 5th an. Q 5th.

White to play and mate in four moves.

No. 3. By —, Esq.

WHITE.—K at Q B 2nd; Q at Q R 5th; Kt at K 7th; Ps at K 4th and Q B 6th.

BLACK.—K at Q B 5th.

White to play and mate in three moves.

Now, Mrs. Grundy, your gatherings; and, O Laird, your facts.

LAIRD.—Here they are, and scrimp indeed I maun mak them, for, as usual, you've left me nae room. However, here goes (*reads* :)

MULCHING.

This process, although known and practised for many years by a few cultivators, has become extensively adopted only at a very late period. It seems peculiarly adapted to our hot and dry summers, and operates chiefly in preserving the moisture of the surface, and in preventing the growth of weeds. The moisture at the surface of the earth from rains and dews is quickly dissipated under a hot sun; and if this surface is allowed to become covered with a dense growth of living grass and weeds, these pump out of the soil and throw off into the air a much larger quantity of moisture than is evaporated by a bare surface of earth only. But if this surface is covered with a few inches of old straw, hay or leaves, the moisture is retained in the soil, and the growth of weeds prevented. As a general rule, we have found it most advantageous to leave the surface bare and keep the soil well mellowed till near midsummer, and then to apply the mulching. For a covering of litter, while it promotes the humidity, also prevents the heating of the soil, and in this way may retard early growth if applied too soon. There are exceptions, however; one in the case of large, deeply-rooted trees not affected by nor needing mulching, and the other where small plants, which are removed in summer, need the careful and constant retention of the moisture of the earth. We have succeeded, with scarcely one failure in fifty, in transplanting the strawberry in the drouth and heat of summer, by simply giving the surface a mulching of two inches of barn manure, and on which the watering was poured when necessary. Indeed, there is nothing that better prevents the ill-effects of baking by surface watering, than a covering of this sort of a moderate depth. Mulching will, however, promote moisture in the soil, even when neither artificial nor natural watering is given, simply by arresting such as rises upwards through the earth. In one instance a striking illustration of this effect was furnished during a very long season of drouth, which injured and threatened to destroy a row of newly transplanted apple trees. Their leaves had already begun to turn yellow, and growth had ceased, but on coating the ground about them with a crop of mown weeds, a change was soon

effected, and in three weeks the leaves had returned to their deep green hue, and in some instances growth had recommenced. But on no kind of tree is mulching more necessary than on newly transplanted cherry trees. Thousands of these are lost every season, after they have commenced growing, by the drying heat of midsummer, and the evil is sometimes increased by superficial watering. A deep mulching will generally prove a complete remedy if seasonably applied.

Some interesting facts on this subject were stated, and valuable suggestions made at one of the conversational meetings of the Massachusetts Horticultural Society. S. WALKER remarked that he had used tan, sawdust, litter, leaves, &c., but he believed short, newly mown grass one of the best things,—he had mulched a great deal with it, and found it laid close to the soil. He also recommended the succulent weeds of the garden or roadside. He found tan and sawdust to be useful merely by retaining the moisture. D. HAGERSTON had found sedge from salt marshes best, particularly if cut short; a good watering upon it made it lay close to the ground. He found it excellent for strawberries. He had also found tree leaves excellent, if they had partly decayed, so as not likely to be blown away. Old hot-bed materials made of leaves and manure had proved particularly fine. Several spoke of the ill effects of too deep a mulching, but we think the more common error is in spreading the covering of the soil too thinly.

Mulching is a very easy and cheap practice, and the season is now at hand when our readers may prove by varying experiments the best mode of performance.

TO CLEAN CHESSE OUT OF SEED WHEAT.

We announce the following to every wheat-grower who believes that wheat will turn to chess. The simple fact that the writer (and many others have done the same thing,) has eradicated chess from his farm, is sufficient to show the fallacy of the popular belief that "chess is only degenerated wheat." We have given great attention to this matter for more than twenty years, and we have never been able to find an instance of the conversion of wheat to chess; and the result of these investigations has convinced us that no such instance of transmutation did ever occur. We have often alluded to it, because we believe the point one of *great practical importance*; for so long as a man believes in the doctrine of transmutation, he will not take the pains necessary to extirpate chess from his grounds.

MESSERS EDITORS,—I have thought of sending you something like the following, for the last twenty years and over, but always put it off. To clean all the chess out, take the riddles out of the fanning mill, leaving the screen in—take off the rod that shakes the riddles and screen; pour the wheat slowly into the hopper with a basket or a half-bushel; turn the mill a little quicker than for ordinary cleaning, and every grain of chess will be blown out, unless when three chess seeds stick together, which is sometimes the case with the top seeds.

If every farmer will clean his seed wheat in this way, I will warrant that wheat will never turn to