

NOTE ON A PECULIAR GROWTH IN BLACK WALNUT.

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The specimen herewith described, was handed to me by the Hon. Senator Murphy, it having been sent to him by the Huntingdon Organ Company, who purchased the lumber from which it was cut, in the United States. The block is one-half inch thick by three by four inches. As the board to which it originally belonged was being cut up, a portion, occupying the space D^1 (Fig. 3), fell out, disclosing a cleft made by an axe, evidently the result of an abandoned effort to cut the tree down many years before that event actually occurred.

Upon examination it appears that the block occupying the space D^1 was originally continuous with the shaded areas E, E^1 , from which it became separated by the action of the saw—the line of fracture appearing as shown in the figure. This block also completely filled the space D^1 , and evidently extended—in the entire tree—much above and below the limits of thickness in the specimen. The entire surface of the intruded mass, where brought in contact with the surfaces of the cleft, is covered with a thin layer of carbonized material, showing the effects of decay in the first formed tissues, under exclusion of air—a result always to be observed in similar cases; while the grain is found to run at various angles—chiefly right angles—to that of the surrounding parts.

The intruded mass is the result of growth following injury, and an effort on the part of the plant to repair it—a result commonly observed, as in the obliteration of surveyors blazes, and as illustrated in the case of a remarkable blaze described a few years since.¹ This case offers nothing new, but presents some features of interest as showing the extent to which an injury may be-repaired under the ordinary conditions of growth. This will be more obvious from

¹ *Science*, iii, 354.