

W. N. STEWART.

Hemp Brake.

No. 2,943.

Patented Feb. 4, 1843.

Fig. 1

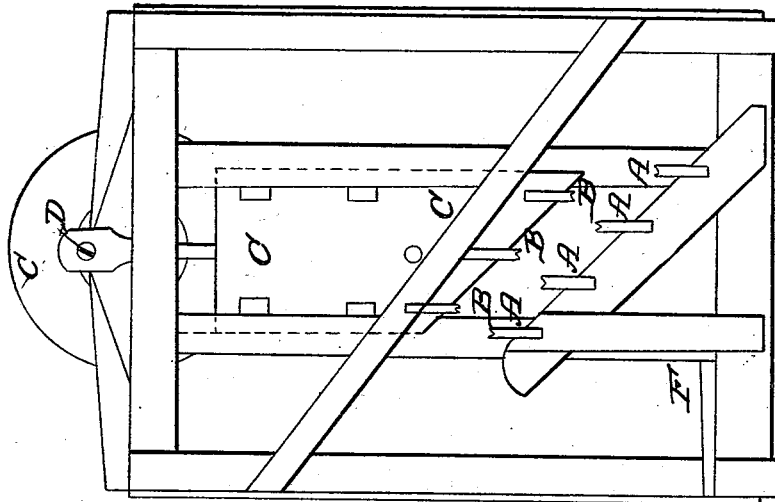


Fig. 2

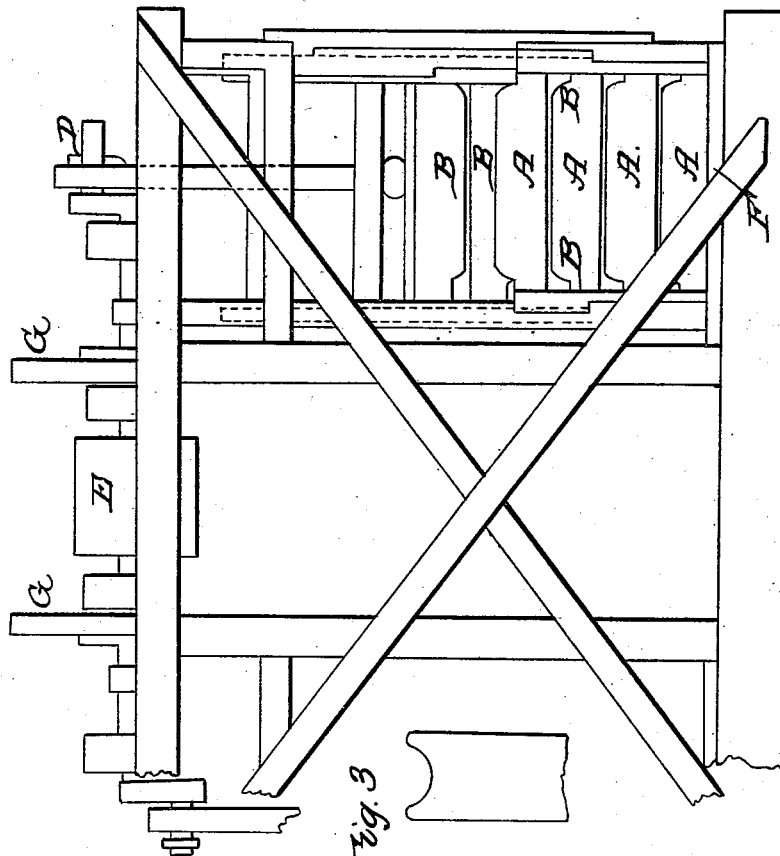
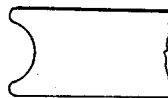


Fig. 3



UNITED STATES PATENT OFFICE.

WM. N. STEWART, OF MAY'S LICK, KENTUCKY.

IMPROVEMENT IN MACHINES FOR THE BREAKING AND CLEANING OF HEMP AND FLAX.

Specification forming part of Letters Patent No. 2,943, dated February 4, 1833.

To all whom it may concern:

Be it known that I, WILLIAM N. STEWART, of May's Lick, in the county of Mason and State of Kentucky, have made certain Improvements in the Manner of Constructing a Machine for Breaking and Cleaning Hemp and Flax; and I do hereby declare that the following is a full and exact description thereof.

In my machine for breaking and cleaning hemp and flax the breaking is effected by means of vibrating operating upon stationary slats, as in many others for the same purpose; but as the material to be broken and cleaned lies upon the series of stationary slats, it is to be struck by the vibrating slats at an acute angle—say at an angle of about forty-five degrees—and in all cases at an angle differing greatly from a right angle. Where the rotting has been carried to a great extent, the angle at which it is struck may be greater than that of forty-five; but when not highly rotted, it is best not to exceed this amount. My manner of feeding the article to be broken differs, also, from that heretofore adopted, the machine being so constructed that the handful of hemp or flax may be thrown in between the slats laterally, instead of endwise, by which means the whole length that it is desired to have acted upon at once, is passed in directly between them, no part of the frame interfering to prevent the so doing. I have likewise given an improved form to the edges of the slats by making a flute or hollow along each of them, so as to cause them to have two operating-edges instead of one rounded edge, as heretofore. By means of these improvements the material is acted upon much more advantageously than in the machine usually employed. The feeding is more readily effected. The fibers are struck in an oblique direction with a kind of wiping motion, and are consequently less injured and more completely cleaned from the hurds or shives than in any other machine—so completely, indeed, that

the cleaning may be effected by means of the brake alone. The double edges to the slats contribute materially to this result.

In the accompanying drawings, Figure 1 is an end, and Fig. 2 a side, elevation of a part of my machine, the slats being represented at one end only in the latter figure, their arrangement being the same at the opposite end.

A A A are the stationary slats attached to a frame standing at an angle of forty-five or any preferred number of degrees with the horizon. B B are the vibrating slats attached to a slat-frame, C C, and operated by a crank, D, on a crank-shaft, which may be driven by a whirl or drum, E. The person tending the machine stands upon a platform, F, and throws the hemp or flax laterally between the slats A and B when it is managed in the ordinary way.

Fig. 3 is a sectional view of the edge of one of the slats, showing the manner in which it is fluted or hollowed, so as to present two operating-edges. G G are fly-wheels to regulate the motion.

Having thus fully described the nature of my improvements in the machine for breaking and cleaning hemp and flax, and shown the manner in which the same operates, what I claim therein as new, and desire to secure by Letters Patent, is—

1. The mode of arranging the slats, as set forth, so that the material may be struck by those of the vibrating frame at an angle greatly varying from a right angle—say an angle of forty-five degrees, more or less.

2. The peculiar form given to the edges of the slats by making a flute or hollow along them, so as to give to them two operating-edges, the whole being combined and arranged substantially in the manner and for the purpose herein fully made known.

WILL. N. STEWART.

Witnesses:

THOS. P. JONES,
JOHN HITZ.