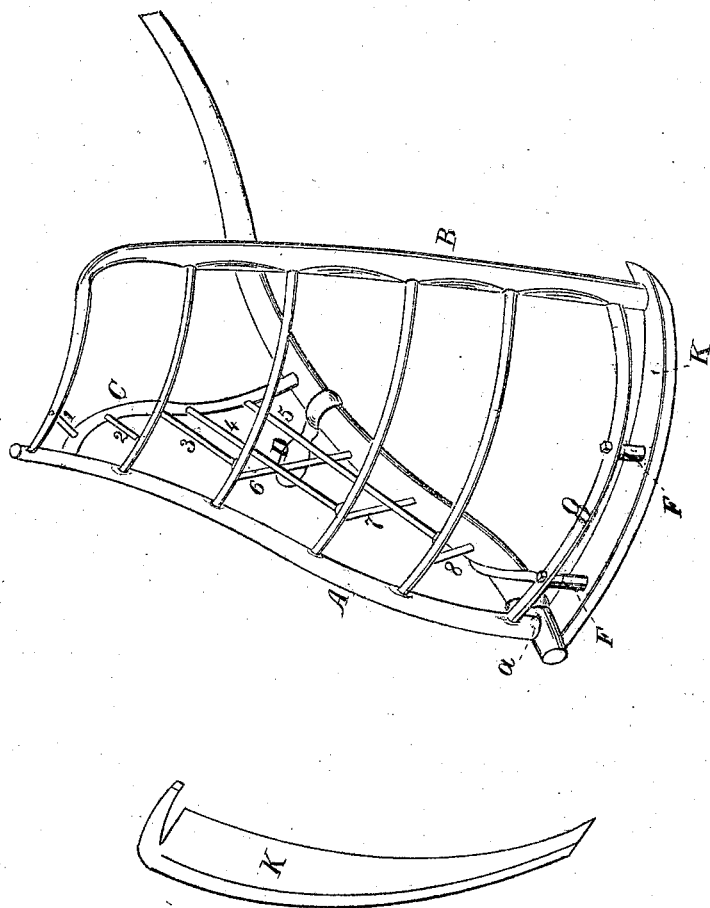


*G. Reynolds Jr.
Hemp Cradle.*

No. 3607

Patented May 30 1844



Griffin Reynolds Jr.

UNITED STATES PATENT OFFICE.

GRIFFIN REYNOLDS, JR., OF WASHINGTON, KENTUCKY.

IMPROVEMENT IN HEMP-CRADLES.

Specification forming part of Letters Patent No. 3,607, dated May 30, 1844.

To all whom it may concern:

Be it known that I, GRIFFIN REYNOLDS, Jr., of Washington, in the county of Mason and State of Kentucky, have invented a new and useful improvement on the hemp-cradle heretofore patented by the United States to Laramore, and usually known as "Laramore's Hemp-Cradle;" and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making part of this specification, to the various parts of which drawing reference is hereby had by the following letters, to wit: A B C D E F K.

The cradle may be from four to five feet high, and the knife from thirty to thirty-eight inches long, as the hemp to be cut may be heavier or lighter. The knife is flat, (see letter K on draft,) wider at the heel than at the point or termination of the regular circle, and of a regular circle of about eight feet seven inches, or any given regular circle. The back brace or bender (see letter A on draft) is inserted in the snath (see letter a on draft) at the back edge of the heel of the knife and forms an irregular brace. The front fender or protector (see letter B on draft) extends at an angle of about fifteen degrees from a straight line with snath from near the point of the knife, to which it is fastened by a joint-bolt, to the fifth finger, and then by a circle corresponding with the fingers to letter A or back brace, into which it is inserted by mortise and forms the top finger. The S-brace (see letter C on draft) is inserted in the snath at the left of the nib (see letter D on draft) by mortise and extends in the form of the letter S to letter A or back brace, equidistant between fifth and sixth finger, (on draft,) into which it is also inserted by mortise. The number of the fingers will be governed by the height of the cradle, the height of the cradle by the length of the knife, and the length of the knife by the hemp to be cut, whether heavier or lighter, as above explained. The fingers are inserted into letter A or back brace by round tenon, and into letter B or front brace by mortise. The first finger is elevated above the knife about three inches and supported by two stud-bolts (see letters E and F on draft) from the knife to the first finger sufficient distance from each other and front brace and back brace to steady and strengthen the knife, with a joint-bolt through the point of

the knife into front brace, as explained above. Eight braces to support fingers, (see small figures 1, 2, 3, 4, 5, 6, 7, 8,) three from snath to second, third, and fourth fingers, and five from S-brace to second, third, fourth, fifth, and sixth fingers. The number of braces will of course be governed by the number of fingers.

The general arrangement and bringing together the cradle, as above specified, gives it a more perfect equilibrium and greater strength and steadiness than Laramore's cradle without adding to the weight of the cradle. The frame of the cradle, being raised at an angle of about fifteen degrees from a straight line with the snath to within about five or seven inches of the top, which is set out nearly on a square with a straight line from the snath, causes the cradle, with much greater certainty and facility, to gather the hemp, and renders it much less difficult to deliver it in the same uniform order that it gathers it.

The flat knife and the regular circle of the knife, and its being wider at the heel than at the point or termination of the regular circle, possesses the following important advantages over Laramore's knife:

First. The knife being flat and of a regular circle gives it a regular purchase and support from the edge to the back and from the heel to the point, whereas the raised edge and the irregular circle deprive the knife of the necessary regular brace and support, cause it to spring and to twist, force the knife downward, and make it much more unmanageable, and necessarily much more laborious upon the operator. The same weight of metal in the flat knife with regular circle renders the knife much stronger and causes it to cut much more easily with the same power, because the strain on the knife and the power applied in the use of it are necessarily distributed with perfect regularity to every part of the knife.

Secondly. As the cradle advances, the hemp falls from the point to the heel in a body more compactly, and requires greater surface to act upon and support it until it is delivered, and hence the reason that the knife should be wider at the heel than the point.

The setting apart the knife and the first finger.—The knife of Laramore's cradle is supported by a broad finger or board several inches wide resting upon the knife, which causes a serious obstruction by collecting and retaining

whatever may happen to come in contact with it, and the spring of the knife is very liable to admit between it and the board or broad finger stubble and other trash, which causes a confusion of the hemp, and the cradle to move sluggishly and heavily, all of which difficulties and objections are entirely obviated in the above improvement, while the knife is better supported and the hemp has the whole surface of the knife to rest upon.

The front brace and finger-braces.—The finger-braces from this brace are indispensable to the proper strength and steadiness of the whole cradle, as well as of their respective fingers, and the form of the S-brace alone admits of their use, while it greatly assists in supporting the entire frame. The additional number of fingers, in the stead of the cloth or iron rods, increases the strength of the cradle and will add very slightly, if at all, to its weight.

The more the wooden fingers are used the smoother, of course, they become, and the small branches of the hemp are less liable to become entangled and to hang upon them than the small iron rods or the narrow hoop-iron, and are much more durable than the cloth, and will add to the ease and the facility of delivering the hemp.

Your petitioner, the said GRIFFIN REYNOLDS, Jr., claims as his original improvement upon Laramore's hemp-cradle—

The combination of the knife, constructed as described, with the front brace, B, and space between the first finger, O; and the knife.

In witness whereof the said GRIFFIN REYNOLDS, Jr., has hereunto set his hand the 16th day of September, 1843.

GRIFFIN REYNOLDS, JR.

Attest:

C. W. OWENS,
H. R. REEDER.