J. C. DRAKE.

Fence.

No. 200,132. Patented Feb. 12, 1878.

Fig. 1.

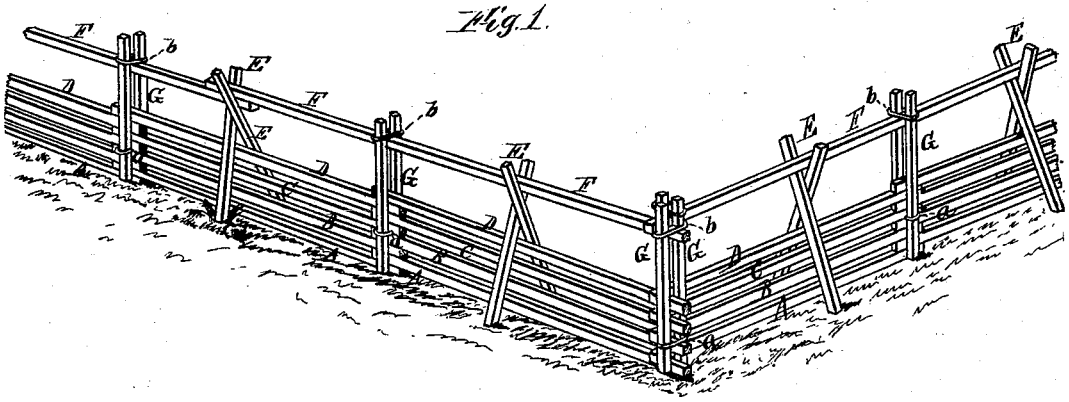


Fig. 2.

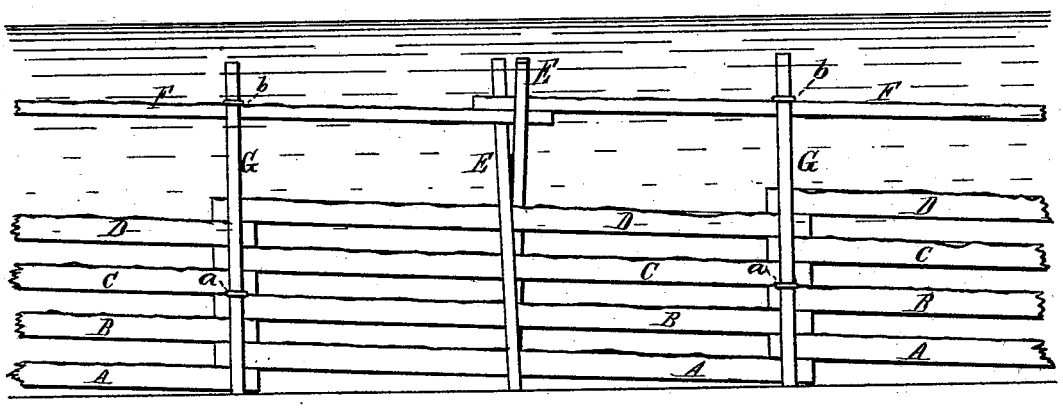
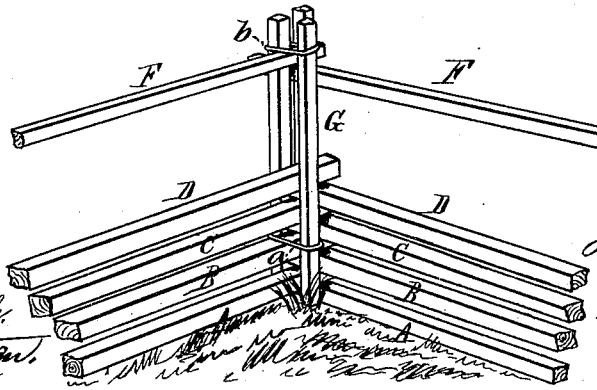


Fig. 3.



Witnesses:
Chas. R. Searle.
Jno. D. Patton.

John C. Drake,
Inventor:
By Munn & Co's
Attorney.

UNITED STATES PATENT OFFICE.

JOHN C. DRAKE, OF LITTLE ROCK, ARKANSAS, ASSIGNOR OF ONE-HALF HIS RIGHT TO CHARLES O. KIMBALL, OF SAME PLACE.

IMPROVEMENT IN FENCES.

Specification forming part of Letters Patent No. **200,132,** dated February 12, 1878; application filed November 8, 1877.

To all whom it may concern:

Be it known that I, JOHN C. DRAKE, of Little Rock, county of Pulaski, and State of Arkansas, have invented certain new and useful Improvements in Fences, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 is a perspective view, showing two adjacent sides of a fence constructed in accordance with my invention, the view being taken as if looking toward the corner from the exterior of the inclosure. Fig. 2 is an elevation of a portion of one side of the fence; and Fig. 3, an enlarged perspective view, illustrating in detail the method of forming the fence-corner.

Like letters of reference in all the figures indicate corresponding parts.

My invention has relation to that class of fences which are made up of rails and stakes, and which are ordinarily denominated "rail-fences;" and the object of the invention is to produce such a fence as shall effectually resist the efforts of cattle or stock to overthrow it or break it down, as well as the action of back-water or high water to destroy its firmness, while at the same time it shall be capable of being easily and quickly made, and be economical of fence material.

To accomplish all of this, the invention consists in certain peculiarities of construction and arrangements of parts, as will be hereinafter first fully described, and then pointed out in the claims.

As indicated in the drawing, the fence is made up of a series of panels of rails, all of about equal length, and each panel is secured in a vertical position by a couple of upright stakes driven into the ground at or near the ends of the rails forming the panel.

A A A, &c., are the lower rails, one end of which rests upon the ground, and the other upon the end of the next adjoining rail. B B B, &c., are the rails in the second tier, laid in a manner similar to that of the lower row or tier, and above this second row, and resting thereon, are the wire bands *a a a*, &c., wound tightly about the vertical stakes, and serving to clamp them firmly against the panels, as well as to hold the rails below down upon the ground in case a rise of water tends to elevate them. Over the bands *a a*, &c., are laid any further desired number of rails, as C C C D D D. These form the close lower portion of the fence, intended to prevent the egress or ingress of the smaller animals or stock about the farm, and they may be multiplied as circumstances may require, though for all ordinary purposes four rails of the usual size in each lower part of the panel are regarded as sufficient. The wire bands *a a a*, being about sixteen inches from the ground, are not exposed to rust from contact with the damp ground, weeds, and grass, and since these bands are supported upon the second tier of rails, they are not required to sustain the weight of any portion of the fence above, thereby greatly diminishing the danger to them from any extra pressure, as of cattle bearing against the fence.

To hold the uppermost rails of each panel, as D D, &c., firmly in place, the inclined stakes E E are driven firmly into the ground, and made to bear upon the upper edges of said rails. These stakes E E are located one upon each side of the fence, and at about midway of the length of the panels. The riders F F F, &c., are supported in the crotches formed by the crossed stakes, the ends of the riders being made to terminate at or beyond the crotches. The fence being so built up, it becomes necessary to secure the riders against displacement by high water or by stock. This is done by means of a second band, *b b b*, &c., located over the rider and secured to the vertical stakes G, G, G, &c., as plainly shown. The riders should be first settled down to their probable final positions, and then, if the centers be sprung down slightly and the band *b* so secured as to bring a downward pull upon them at all times, the fence will be the more secure.

From a consideration of the method of uniting the several parts of the fence, as above explained, it is obvious that if the vertical and inclined stakes be securely driven into the ground the fence may be completely submerged without danger of displacing any part of it, for the rails in the two lower rows are held down at their ends by the bands *a a a*, &c.,

the upper rails in the next two rows are each held down at their central points by the cross-stakes, and at one end by the end of the overlapping rail, and the riders are similarly secured at the central points by the bands *b b*, and at one end by the overlapping rider; and while the fence is thus made secure from the damaging action of backwater, it is also thoroughly braced, and well calculated to resist the action or pressure of cattle against it, since, the several parts being securely united, the fence would have to be literally overturned before it would give way, unless, of course, the rails should be capable of being broken, which is not to be supposed.

The corner is formed by placing three vertical stakes for the reception between them of the rails at the end of the fence, the arrangement being clearly indicated in Figs. 1 and 3. The ends of the rails and riders at the corners are firmly bound down by bands about the corner stakes, and the corner riders are made longer than the others by about half the length of a panel, so that the means of securing the remaining riders may be carried out uniformly throughout the length of the fence, however long it may be.

The union of the several parts of the fence is so complete under the above arrangement that, even should some of the stakes rot off at the ground, the remaining stakes would maintain the structure with comparative stability.

I am aware that rail-fences have before been made up of rails laid practically in the same straight line, and that these have been held by vertical posts at their ends, either doubled or provided with holes for the reception of the ends of the rails; and I am also aware that such fences have been supplemented by the ordinary stake and rider.

To such a fence I desire it understood that I lay no claim, for my invention involves an improvement upon that class of fences, whereby I am enabled to accomplish the several objects as herein enumerated, as well as to produce a structure which may be made cheaply, quickly, and with the ax alone.

I desire also to acknowledge the previous invention of such a fence as is shown in the American patent to John Markley, dated October 12, 1869, wherein the several parts are firmly anchored, but which necessitates considerable fitting, and is much too expensive for ordinary use.

Having thus fully described my invention, what I do claim as new, and desire to secure by Letters Patent, is—

1. As an improvement in the art of building fences, the method herein described of uniting the several elements necessary to form the intermediate panels—that is to say, resting the ordinary split rails one upon another, between the double vertical stakes, holding them down by means of the wire bands *a a*, securing the upper rows of rails at their central points by means of the crossed inclined stakes, and holding the riders down by bands *b b* at their central points, said riders being also supported at their extremities by the inclined stakes, all the parts being united substantially as shown and described, for the purpose of resisting the overturning action of high water and of stock, as explained.

2. As an improvement in the art of building fences, the method herein described of uniting the several elements necessary to form the end panels—that is to say, resting the ordinary split rails one upon another, the several rows of lower rails being held in place by bands *a a* at their ends, causing the inclined cross-stakes E E to bear down upon the central points of said rails, arranging the vertical stakes at or near the end of each of the said panels and at the corners, as shown, and holding the riders F F down by the bands *b b*, the corner or end riders being longer than the others, and the whole being united as and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

JOHN C. DRAKE.

Witnesses:
C. L. FLETCHER,
THOS. E. BURROW.