C. P. BUCKINGHAM.

Rest and Holder for Pointing Harrow-Teeth.

No. 216,019. Patented June 3, 1879.

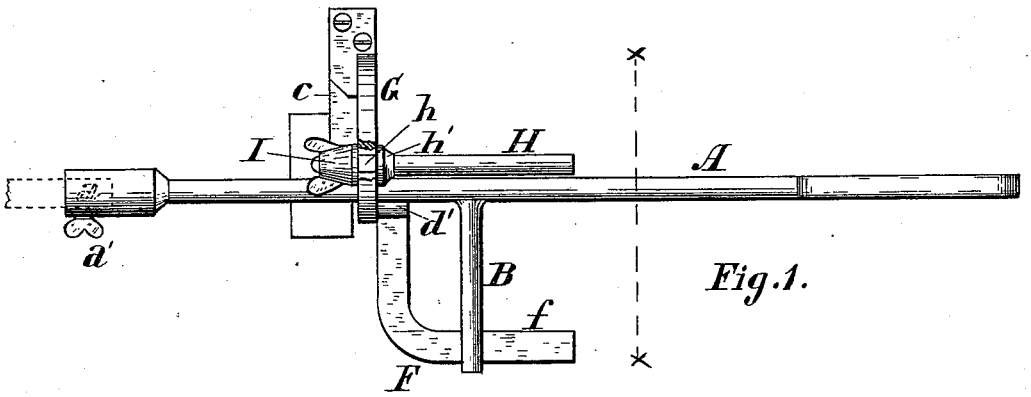

Fig. 1.

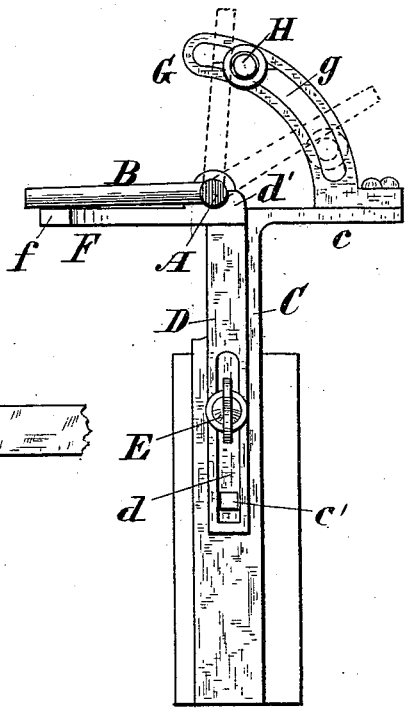

Fig. 2.

Fig 4

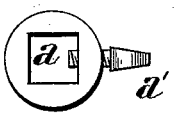

Fig 3

Witnesses

W. C. Corlies

Jno. C. MacGregor

INVENTOR

Catharinus P. Buckingham

By Coburn & Thacher

Attorneys

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CATHARINUS P. BUCKINGHAM, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN REST AND HOLDER FOR POINTING HARROW-TEETH.

Specification forming part of Letters Patent No. **216,019**, dated June 3, 1879; application filed May 27, 1878.

To all whom it may concern:

Be it known that I, CATHARINUS P. BUCKINGHAM, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Rest and Holder for Pointing Harrow-Teeth, which is fully described in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a plan view of the rest and holder in working position; Fig. 2, a front elevation of the same, the tooth-holder being in section on the line *x x*, Fig. 1; Fig. 3, an end elevation of the holding-socket for the tooth; and Fig. 4, a plan view of the pointed end of a harrow-tooth.

The object of my invention is to provide a device by means of which the tooth-holder may be properly supported and the vibration thereof regulated by fixed stops, so that the beveling of the faces of the tooth to form the point will be effected with complete regularity.

The invention consists in a holder for the tooth, in combination with a rest provided with gage-stops, by means of which the vibration of the holder is limited and regulated.

It also consists in special devices and combinations, all of which will be hereinafter more fully set forth.

In the drawings, A represents a handle or holder, for the purpose of manipulating the tooth during the process of pointing, and for this purpose it is provided at one end with a socket, *a*, adapted to receive the end of the tooth, and furnished with a binding-screw, *a'*, to hold the latter firmly in place. This holder is also provided with an arm, B, projecting at one side thereof. A standard, C, is secured in an upright position to any suitable support, and is bent at right angles at its upper end to form a horizontal projecting arm, *c*. A supporting bar or plate, D, is secured also in an upright position to the standard C by means of a binding-screw, E, passing into the standard through a slot, *d*, in the bar. A pin, *c'*, on the standard also enters the slot *d*, and holds the bar from turning. It is evident that this attachment permits the bar to be adjusted vertically on the standard. At the upper end of the bar D a circular seat, *d'*, is provided, adapted to receive the round shank of the tooth-holder A. An arm, F, projects horizontally from the upper end of the bar D, and is then bent backward in the same plane to form a stop, *f*, just in front of the rest. The arm F is arranged to project from the standard in an opposite direction to the horizontal portion *c* of the latter. A curved arm, G, is mounted upon the horizontal support *c*, and fastened thereto in any suitable way. This arm projects inward over the seat for the holder, and is provided with a curved slot, *g*. A short rod or pin, H, is provided at one end with a square shank, *h*, which fits the slot *g*, and has a screw-thread cut upon its end. The pin is secured to the curved arm by inserting the shank in the slot and turning upon the end a nut, I, a collar, *h'*, on the pin being provided to prevent the pin from passing through the slot. This pin is arranged to project in front of the support parallel to the stop-arm *f*, and from the description above it is evident that its position may be adjusted so as to regulate the distance between it and the arm *f*.

It will be understood, of course, that the usual hammer is employed to point the teeth. The tooth is turned between the strokes of the hammer by means of the holder A, which rests in the seat *d'*, provided for it, and is oscillated by the attendant. The supporting device is arranged with reference to the hammer, so that when the tooth is thrust forward under the latter the arm B will come between the two arms *f* and H, as shown in Fig. 1 of the drawings, when it is evident that the latter devices will operate as stops, limiting the oscillatory movement of the holder by the arm B striking against them alternately as the holder is turned first in one direction and then in the other.

If the arm or pin H is properly adjusted the turning of the tooth under the hammer will necessarily be perfectly regular, so that the taper of the point will be formed with regular and uniform faces.

The movable pin H must be adjusted so as to gage the movement of the holder according to the form of the tooth. If the tooth is four-sided and square, as shown in the drawings, the adjustment should be such that the distance between the two stop-arms is the

fourth of a circle. If the sides or faces of the tooth are increased or diminished, or the section is diamond-shaped, the adjustment should, of course, be changed accordingly. The height of the rest for the holder is properly regulated by adjusting the movable bar D, as heretofore described.

This device enables me to give a much better finish to harrow-teeth than is usually the case, and at the same time it relieves the attendant from the careful attention necessary in case no gage is used, even an unskilled laborer being able to point the teeth nicely with the use of this gage-rest.

As stated, the device is intended especially for pointing harrow-teeth; but it is evident that it may also be employed with advantage in pointing or forging other articles which are designed to have several faces; and therefore I do not limit my invention to a device for use only with harrow-teeth.

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

1. The independent holder A, provided with a stop-arm, B, in combination with the stops H and *f*, arranged to limit the vibration of the holder, substantially as described.

2. The horizontal arm *f*, in combination with the holder A, provided with a projecting arm, B, and the adjustable stop H, substantially as described.

3. The vertically-adjustable bar D, provided with a seat, *d'*, for the holder, in combination with the holder A, having a projecting arm, B, the stops *f* H, and the curved slotted arm G, substantially as described.

CATHARINUS P. BUCKINGHAM.

Witnesses:
L. A. BUNTING,
JNO. C. MACGREGOR.