

# UNITED STATES PATENT OFFICE.

ZEBULON LYFORD, OF LOWELL, MASSACHUSETTS.

## PICKER FOR LOOMS.

Specification of Letters Patent No. 19,428, dated February 23, 1858.

*To all whom it may concern:*

Be it known that I, ZEBULON LYFORD, of Lowell, in the county of Middlesex and Commonwealth of Massachusetts, have invented  
5 a new and useful Improvement in Loom-Pickers; and I hereby declare that the following specification, in connection with the accompanying drawings and references thereon, constitute a lucid, clear, and exact  
10 description of the construction and use of the same.

In referring to the said drawings, Figure 1 denotes a plan of my picker connected to the picker staff. Fig. 2, a front elevation of  
15 the same. Fig. 3, another front elevation of it, showing the picker material removed from the cylinder or curb. Fig. 4, a side elevation of the same. Fig. 5, denotes a longitudinal and vertical section on line A, B, of Fig. 1, also of a shuttle as operated by  
20 my picker. Fig. 6, denotes an edge view of the cap D, or front end of the cylinder or curb. Fig. 7, a front view of the same. Fig. 8, a side elevation of the picker material which receives the shuttle, and Fig. 9,  
25 an end view or elevation of the same.

The nature of my invention consists in firmly securing all the outer surface of the material of the picker (except a portion of  
30 its front) to prevent its wear and destruction, and in securing the picker cylinder or retainer for the picker material permanently to the picker staff by screws or otherwise, all as hereafter set forth.

35 To enable persons skilled in the art to which my invention appertains, to construct and carry out the same, I will describe it as follows:

I construct a cylinder or curb of cast or  
40 malleable metal or otherwise, seen at B, and firmly secure it to the picker staff, seen at A, by means of the wood screw or its equivalent seen at G Fig. 5, and the two flanches seen at M, Figs. 1, and 4.

45 To the front end of the cylinder B, is fitted a cap seen at D, so as to screw on or off the main part B, the hole J, in the front part of this cap being formed somewhat smaller than the cavity F, in the main or  
50 back part of the cylinder, thus leaving a shoulder L, Fig. 5, when this cap is screwed on, for coming in contact with the shoulder K, formed on the material for the picker C, to prevent its coming out when in opera-  
55 tion. Any desired material may be used for the part C, such as wood of any kind,

tanned leather, or raw hide, gutta percha, or india rubber pure or vulcanized or any other proper article or substance to receive the blow of the shuttle, and which will at  
60 the same time be durable.

The shoulder L may be formed by casting the whole cylinder C, in one piece, and this shoulder in the cylinder or curb B, the desired shape, and it is better to be so formed  
65 when substance of considerable elasticity is to be used for the shuttle to strike against, as then it can be crowded through the front part of the hole, which is smaller than its back portion, and there remain and be held  
70 by the enlargement or elasticity of the material C, after being crowded through.

In the accompanying drawing a shuttle is seen at H, with its point I, in contact with and as acted upon by my picker for  
75 clearly illustrating how the retaining cylinder or curb B acts upon and restrains the material C, which the shuttle strikes against, and its purpose and effect in preventing too great spreading open of the material  
80 by the penetration of the pointed end I, of the shuttle as it strikes against and penetrates the front end of it thus the shuttle has the advantage of all the elasticity of the picker material, while its exterior is  
85 firmly retained, and consequently its destruction prevented by acting on or against the shuttle, and the shuttle against the picker.

I form a number of indentations or concavities *i*, in and a ring *j* on the frontal  
90 part of the picker material, so that if the shuttle should miss the central one E, in making the pick, it would be received in one of the contiguous indentations *i*, and prevent its flying out or glancing out, and  
95 the danger and accidents liable to ensue thereby.

I consider my invention peculiarly well adapted to be applied to the picker staff which operates on the parallel principle,  
100 but it can be otherwise applied and operated, if it should be thought advisable.

The old rawhide picker which slide upon a metal rod, in or near the shuttle box has no exterior security, consequently after be-  
105 ing used a short time it is entirely beat or perforated through by the point I, of the shuttle, then the whole of the remaining part of the picker is nearly worthless and must be thrown aside. The same may be  
110 said of the old pickers which are screwed to the staff, when operated on the parallel



J. H. LYON.

Coal Breaker.

No. 19,429.

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Fig. 1.

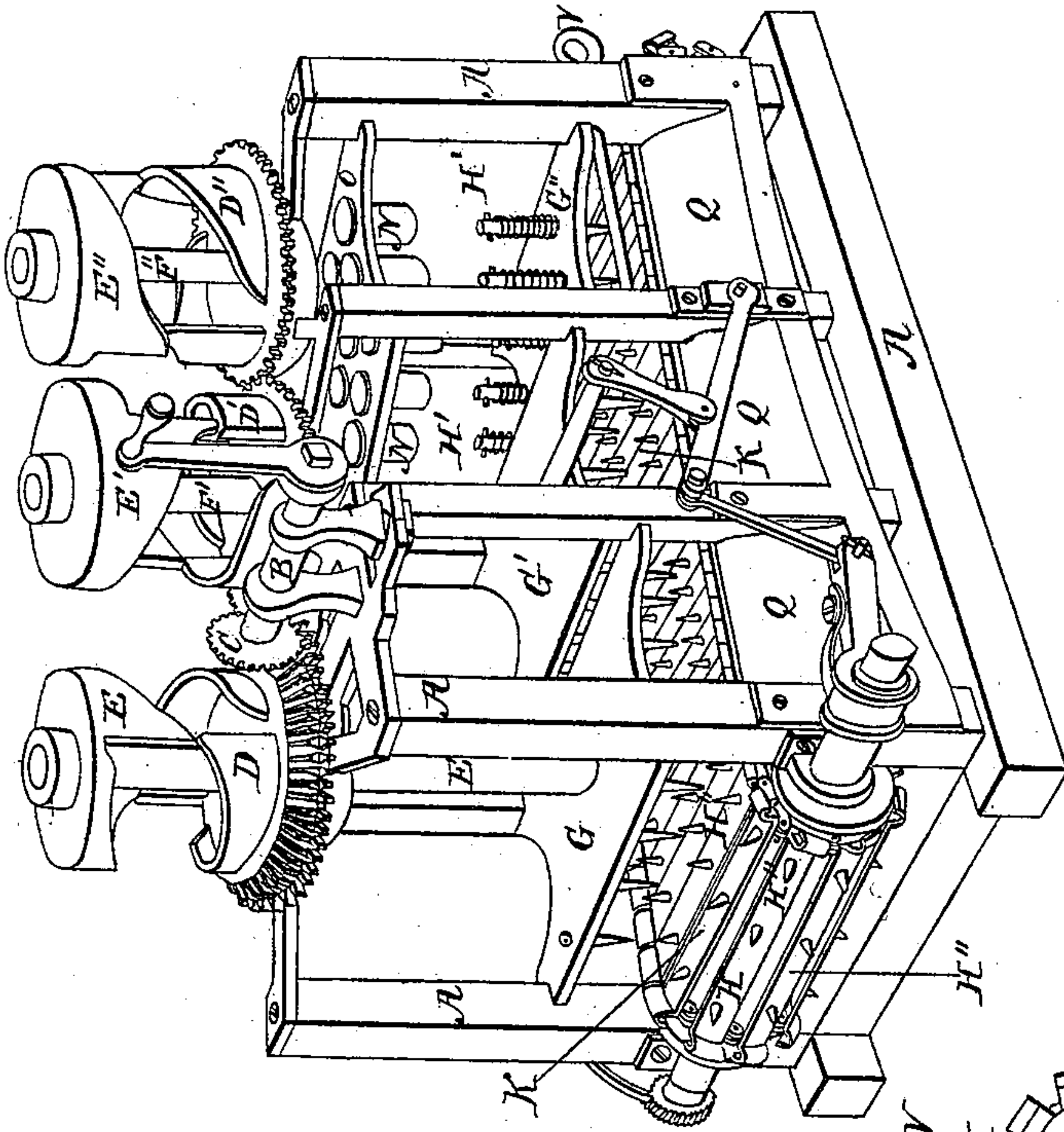


Fig. 3.

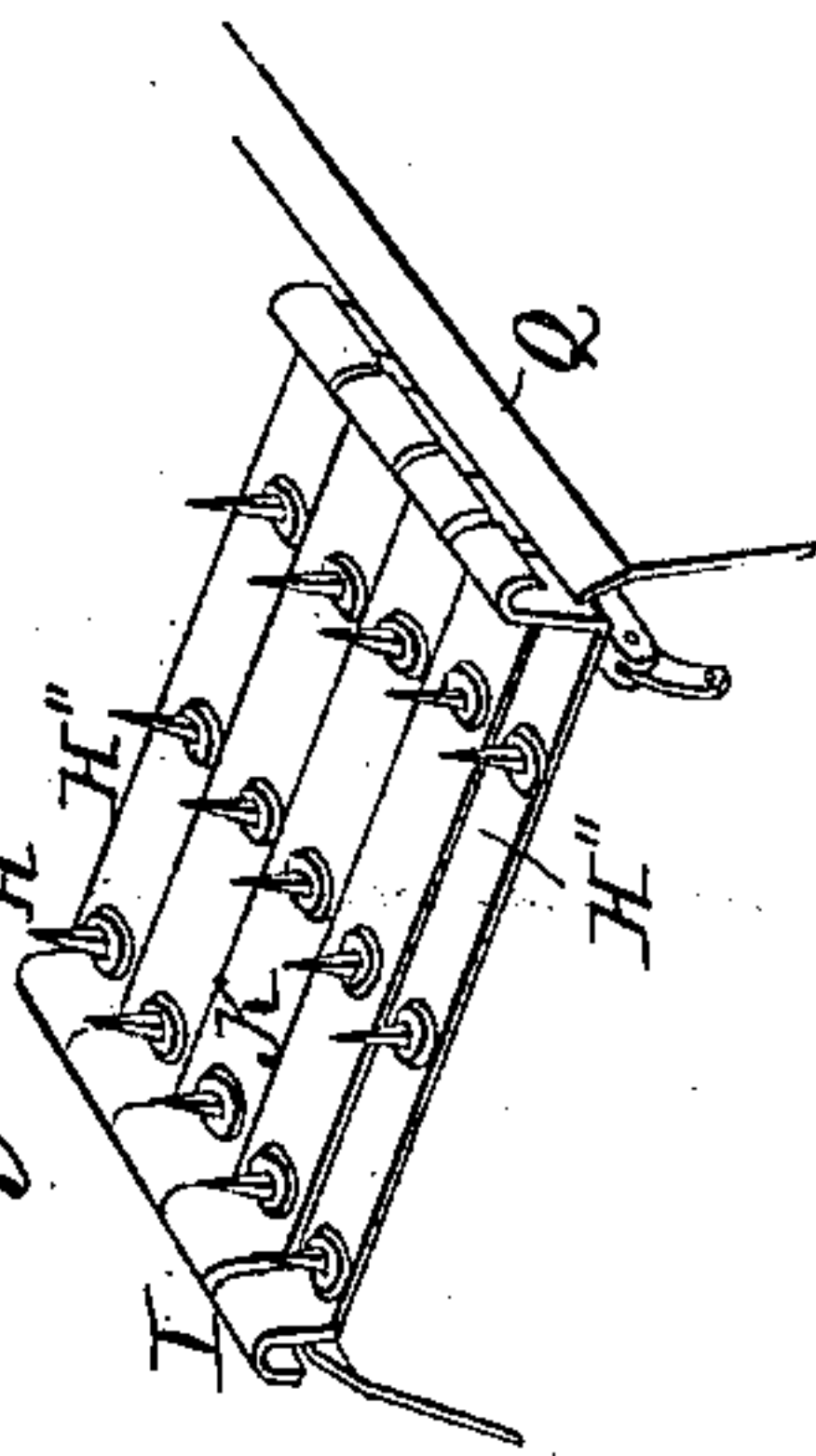


Fig. 2.

