(No Model.)

G. T. CHAPMAN.

HOOF EXPANDER.

No. 456,082. Patented July 14, 1891.

Fig. 1.

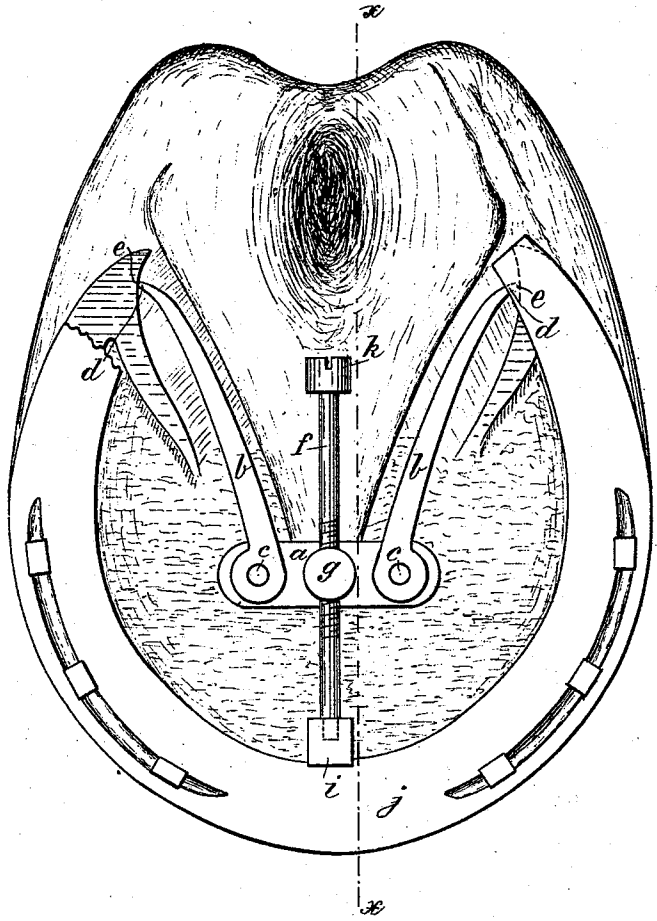
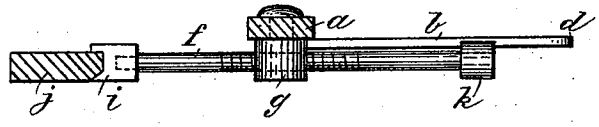


Fig. 2.



Witnesses:
Ernst Lundgren
H. J. Morgan

Inventor,
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By A. P. Thayer.
atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE T. CHAPMAN, OF WHITE PLAINS, ASSIGNOR OF ONE-HALF TO WILLIAM HARVEY MERRITT, OF NEW YORK, N. Y.

HOOF-EXPANDER.

SPECIFICATION forming part of Letters Patent No. 456,082, dated July 14, 1891.

Application filed November 28, 1890. Serial No. 372,801. (No model.)

To all whom it may concern:

Be it known that I, GEORGE T. CHAPMAN, a citizen of the United States, and a resident of White Plains, Westchester county, State of New York, have invented new and useful Improvements in Hoof-Expanders, of which the following is a specification.

My invention consists in a contrivance of struts and a thrust-screw in connection with a head-piece adapted to apply expanding-stresses both laterally and rearwardly on the heel of a horse's foot from a base-support on the inner edge of the bar of the shoe at the toe, from which very powerful and effective thrusts may be produced in both these directions at the same time and by a simple device well adapted to keep its place in use, and specially useful in cases of hoofs contracted at the heel, and also from heel to toe, and arched on the bottom, as in navicular disease, all as hereinafter fully described, reference being made to the accompanying drawings, in which—

Figure 1 represents a plan view of the bottom of a hoof with my improved expander applied to it. Fig. 2 is a section of the expander and shoe on line *x x*, Fig. 1.

To a head-piece *a*, I pivot the struts *b* at one end, as represented at *c*, said struts being suitably curved and pointed or otherwise shaped at the other ends *d* to bite into the inside walls of the heel at *e* when the head-piece occupies a position at the toe of the frog, or thereabout, and to said head-piece I also connect the thrust-screw *f* by a nut *g*, preferably pivoted to said plate, but may be connected by any other approved means of enabling the screw to be used to force said plate backward from a bearing of the end of the screw on the inner edges of the bar of the shoe *j* at the toe where in this case such bearing is provided by the step-block *i*, having a groove in the side bearing on the edge of the shoe to keep the block in place, which block will in practice preferably be swiveled to the end of the screw for permitting the screw to turn and so as to keep them together. At the other end of the screw it has a nicked head *k*, to which a screw-driver is to be applied for adjusting the expander to apply the force and as the hoof expands.

It will be seen that the stresses are expanded laterally on the heel in proportions as the distance between centers *c* is less than the distance between points *d* of the struts of a given length, and there is also powerful effect in expanding the foot lengthwise. For proportionately greater lateral thrusts the struts may be made shorter.

The step-block may of course be so shaped that it will rest in the cavity between the upper side of the shoe and bottom of the hoof, or partly therein and partly against the edge of the bar of the shoe, and I intend to adapt it for either condition, both of which are alike included in my invention.

I claim as my invention—

The combination, in a hoof-expander, of the head-piece, the struts pivoted at one end thereto and at the other end adapted to "bite" into the inside wall of the heel when the plate occupies a position at or about the toe of the frog, and the thrust-screw fitted in a nut on the head-piece and having a step-block adapted to be seated on the inner edge of the toe of the shoe, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 24th day of October, 1890.

GEO. T. CHAPMAN.

Witnesses:
W. J. MORGAN,
W. B. EARLL.