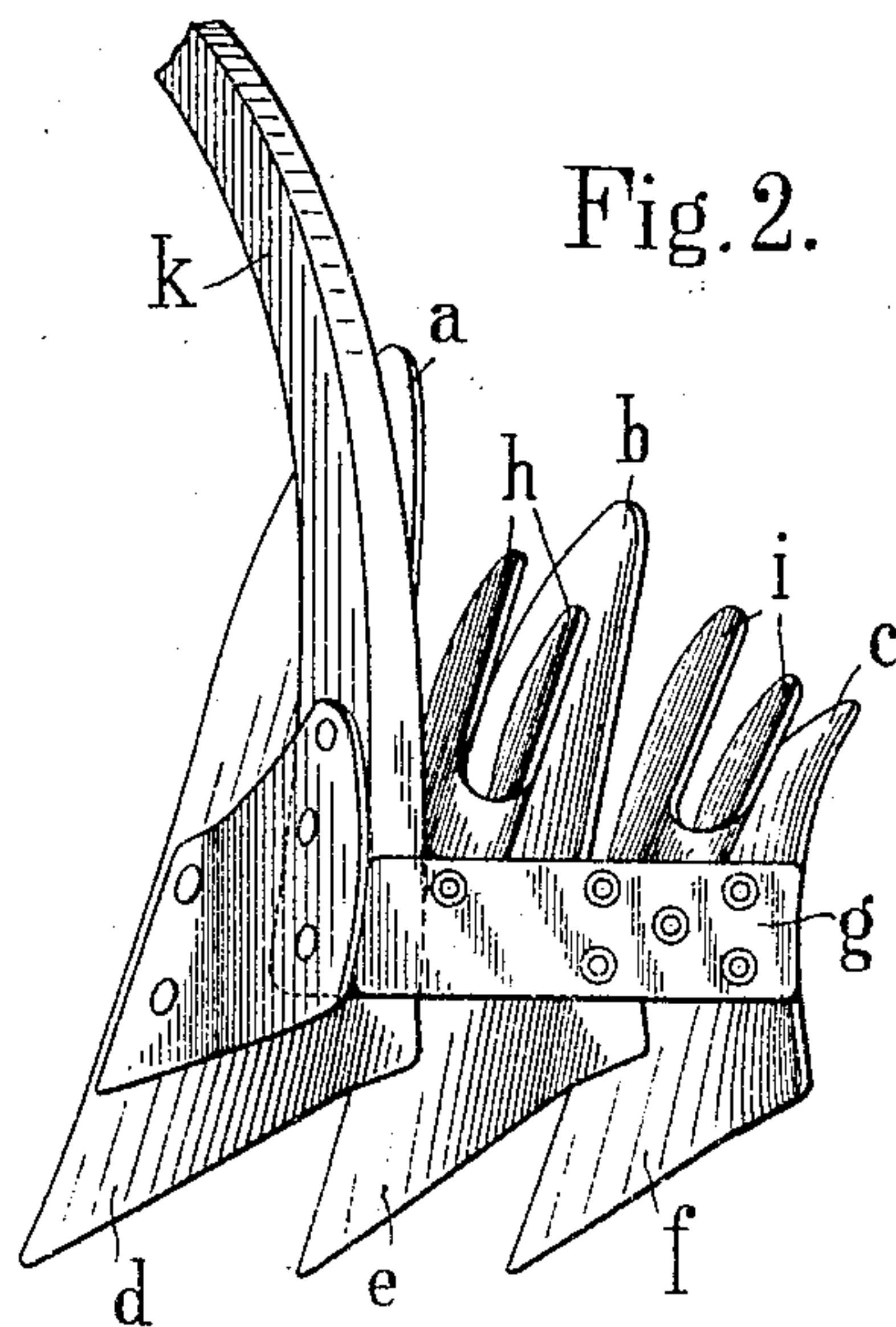
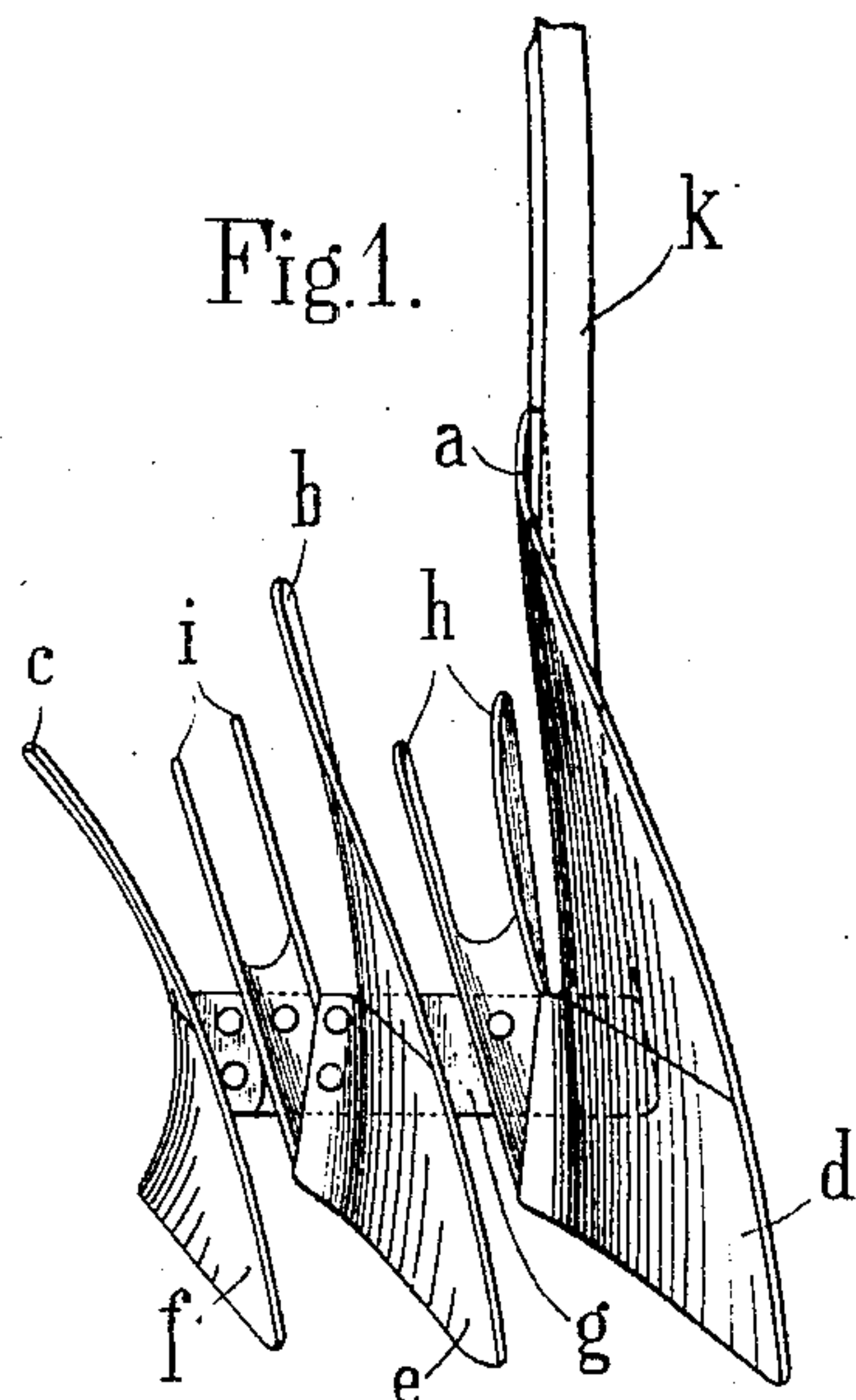


No. 774,785.

PATENTED NOV. 15, 1904.

E. SAATZ.  
LIFTER FOR POTATO DIGGERS.  
APPLICATION FILED JULY 20, 1904.

NO MODEL.



Witnesses:  
G. G. Fuss  
Robert Adt

Inventor:  
Erich Saatz;  
By his attorney,  
F. A. Richards.

# UNITED STATES PATENT OFFICE.

ERICH SAATZ, OF CLAUSHAGEN, NEAR WANGERIN, GERMANY.

## LIFTER FOR POTATO-DIGGERS.

SPECIFICATION forming part of Letters Patent No. 774,785, dated November 15, 1904.

Application filed July 20, 1904. Serial No. 217,298. (No model.)

*To all whom it may concern:*

Be it known that I, ERICH SAATZ, landlord, a citizen of the Empire of Germany, residing in Claushagen, near Wangerin, in the Kingdom of Prussia, Germany, have invented a new and Improved Lifter for Potato-Diggers, of which the following is a specification.

The present invention relates to a lifter improved in form, construction, and method of working for potato-diggers which are intended for working with two lifters, throwing the potatoes in opposite directions—that is, toward the central axis of the machine. Similar constructions fulfilling the same purpose are well known; but the same, on account of their unsuitable and defective construction, do not perform work which is really free from objection and which is practically serviceable. The reason for this may be that the proposed constructions consist of only two single shares placed obliquely toward the back which slice up two rows containing potatoes either over their whole breadth or only partly, so that the earth and potatoes cannot separate themselves cleanly from one another.

In the present case, forming the invention, each of the two lifters throwing right or left toward the central furrow consists of several (preferably three) single shares arranged close to and separated from one another. Each of these shares consists of the share proper for slicing up the ground and of the moldboard belonging thereto for directing the earth, the moldboard being connected with the share proper. The shares employed according to the present invention possess instead a very peculiar curved and sinuous form, corresponding to their special purpose.

In the accompanying drawings one embodiment of the lifter forming the invention is represented, Figure 1 showing the lifter in perspective as seen from the front, and Fig. 2 illustrating the same lifter in perspective as seen from behind.

The right-hand lifter corresponds, of course, exactly to the left-hand one, only with the difference that the one is the reverse of the other.

The connection of the single shares *a b c*, with the moldboards *d e f* belonging thereto, so as to form a complete lifter or triple share,

is rendered possible by means of a steel sole or beam *g*, on which the separate shares in the breadth of a potato-row are suitably fastened, corresponding intervals being left. The shares *a b c* differ from one another in size and form. Between the single shares arranged separated from one another sifting-bars *h i* are, moreover, also arranged on the steel sole *g*, said sifting-bars being doubled. The steel sole *g* branches in a somewhat-backward direction from the lower end of the colter-beam *k* and is preferably made in one piece with the latter. The upwardly-directed end of the colter-beam *k*, which serves for fixing the lifter on the plow-frame, is bent to correspond with the form of the share.

The manner in which the device works is as follows: As soon as the lifters, which are carried by a corresponding upper frame of well-known construction, which frame incloses two potato-rows with its wheels, are sunk into the ground into the reach of the deepest potatoes and are drawn through the same each of the two rows is sliced up in three parts over its whole width by the shares. On account of the continual forward motion the earth, together with the potatoes contained in it, is forced permanently into the space between the separate shares and over the double sifting-bars. Hereby the loose soil is sifted through the sifting-bars, whereas the potatoes, which at first cling together and to the root-stock or rhizoma with their small fibrous roots, pass over the said bars to the surface of the ground, where they remain lying in a long narrow strip. This is a result which has not been hitherto attained by a potato-digger.

What I claim is—

1. A potato-lifter for potato-diggers, comprising a plurality of single plowshares located side by side and each enlarging in succession, a support for said shares, and devices between said shares for sifting the potatoes from the earth.

2. A potato-lifter for potato-diggers, comprising a plurality of single plowshares all located side by side and each enlarging in succession, a beam to which said shares are fastened, and potato-sifting devices occupying the spaces between said shares.



3. A potato-lifter for potato-diggers comprising a plurality of single plowshares located side by side and consisting of a share proper and a moldboard, a beam on which said  
5 shares are fastened, and double sifting-bars arranged between the moldboards of said shares.

4. A potato-lifter for potato-diggers, consisting of the combination of three single plow-  
10 shares differing from one another in form and size and each consisting of a share proper and a moldboard, a beam on which said shares are fastened close to but separated from one another, and double backwardly-inclined sifting-  
15 bars arranged between the moldboards of said shares, substantially as described and for the purpose specified.

5. A potato-lifter for potato-diggers comprising a plurality of single plowshares located side by side and each enlarging in succession and consisting of a share proper and

a moldboard, a beam on which said shares are fastened, and double sifting-bars arranged between the moldboards of said shares.

6. A potato-lifter for potato-diggers, consisting of the combination of three single plow-  
25 shares *a, b, c* differing from one another in form and size and each consisting of a share proper and a moldboard *d, e, or f* respectively, a beam *h* having a steel sole *g* on which  
30 said shares are mounted close to but separated from one another, and double backwardly-inclined sifting-bars *h, i* arranged between the moldboards of said shares, substantially as described and for the purpose specified. 35

In witness whereof I have hereunto signed my name, this 7th day of July, 1904, in the presence of two subscribing witnesses.

ERICH SAATZ.

Witnesses:

HENRY HASPER,

WOLDEMAR HAUPT.