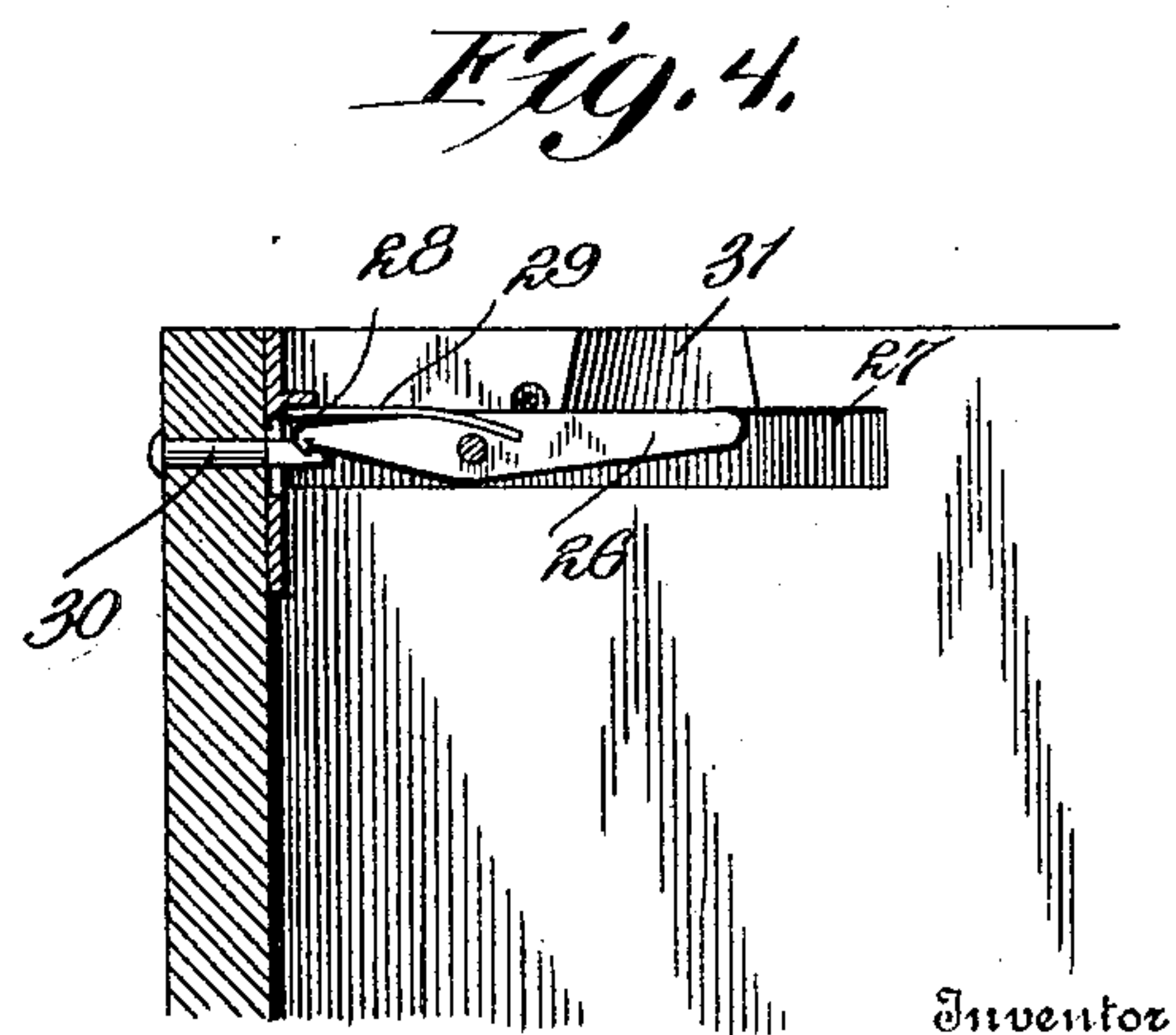
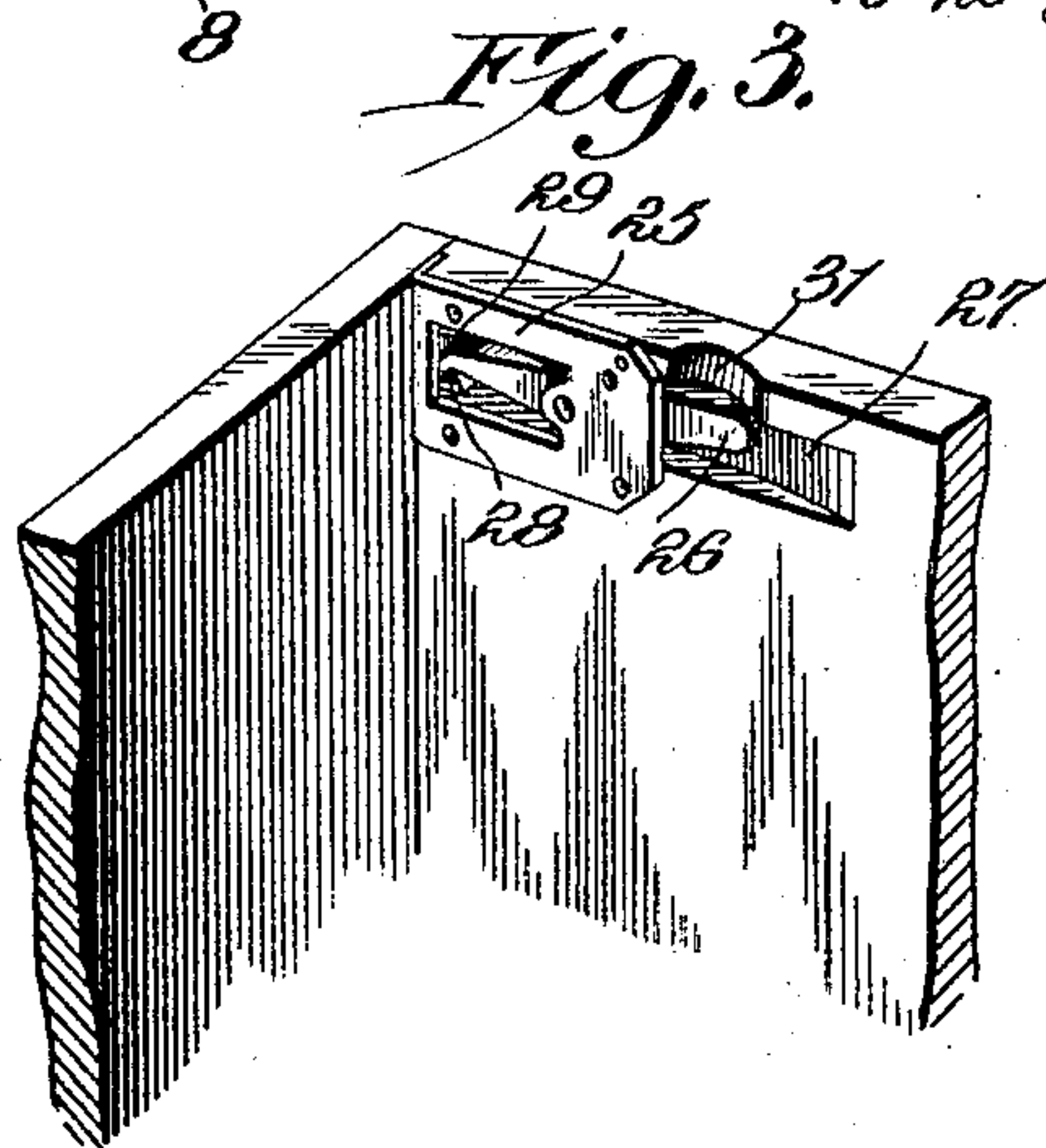
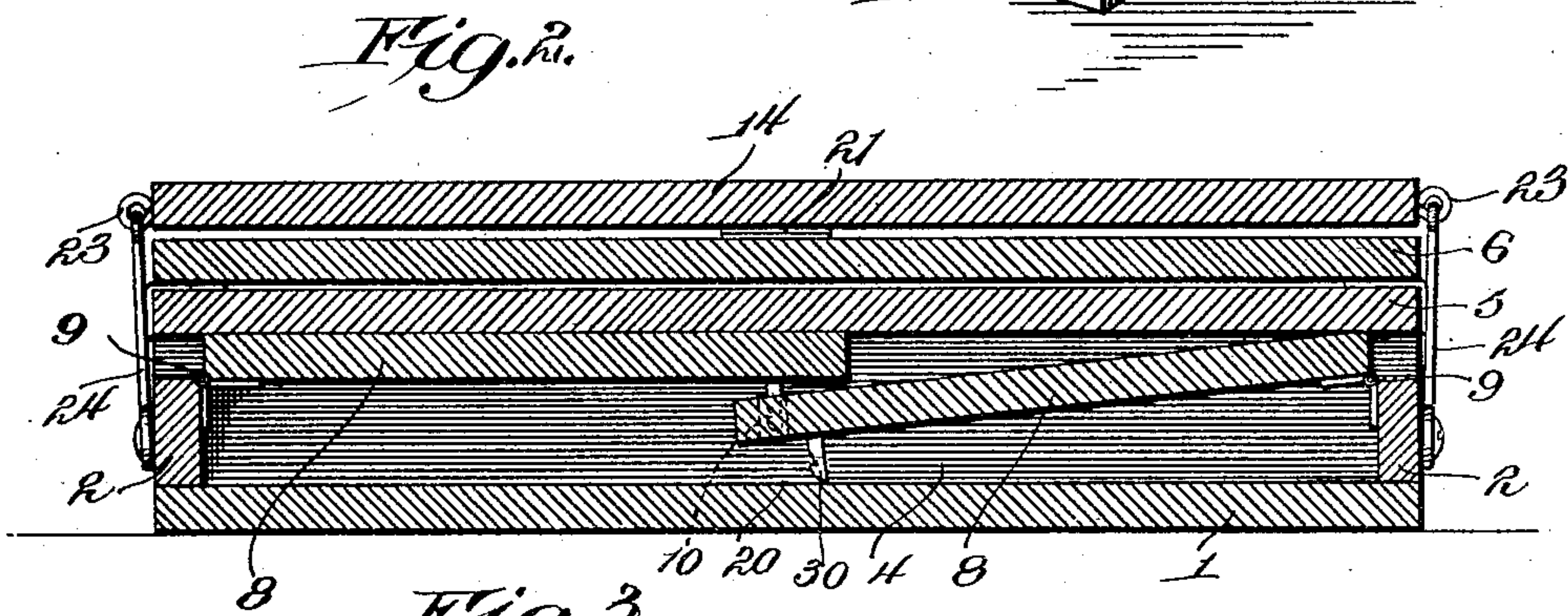
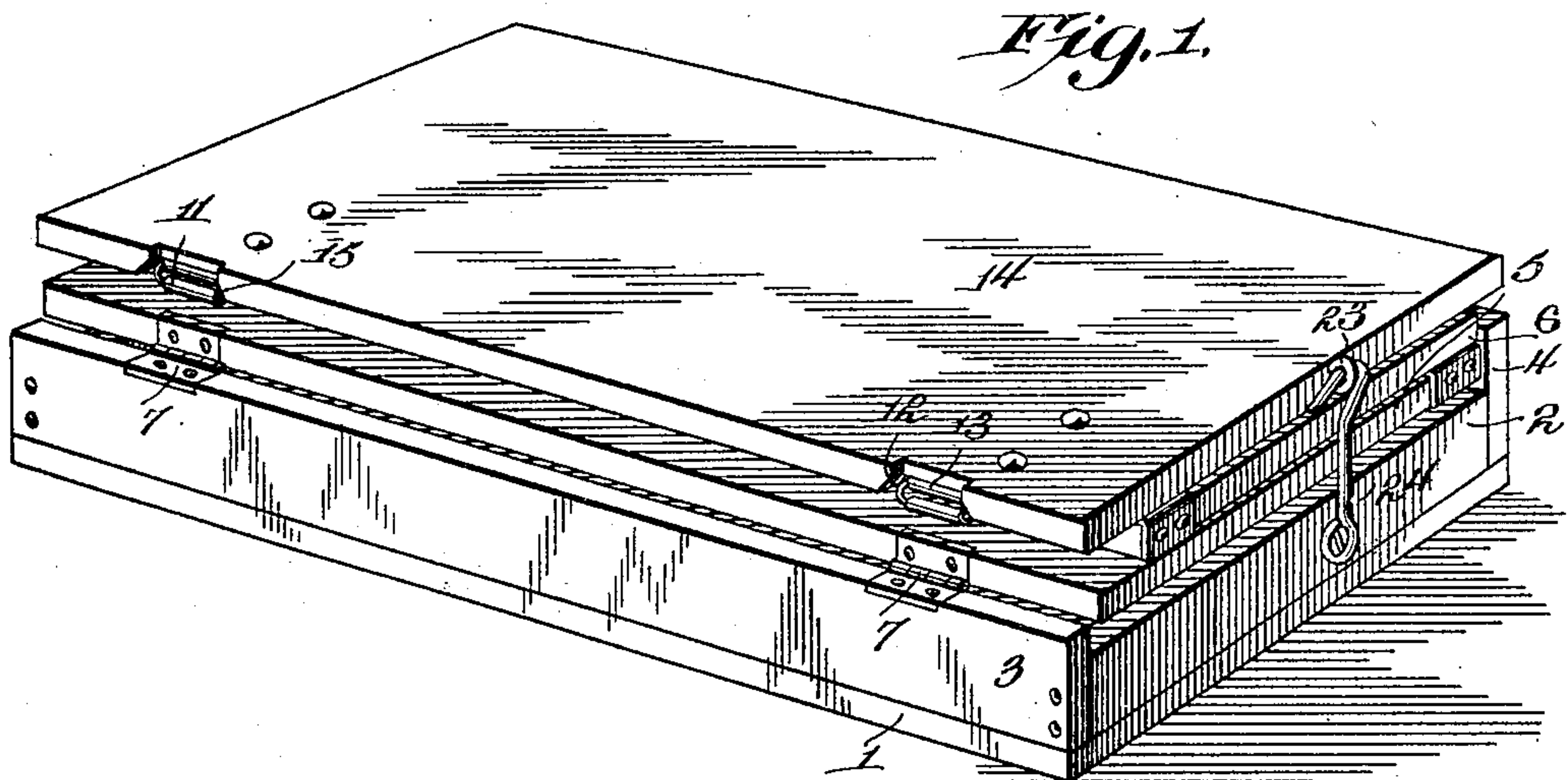


No. 814,500.

PATENTED MAR. 6, 1906.

J. ACKERMAN.  
COLLAPSIBLE OR KNOCKDOWN CRATE.

APPLICATION FILED APR. 11, 1905.



Inventor

Jacob Ackerman,

Witnesses

Louis Starke  
Herbert D. Lawson

By *W. J. Fitzgerald & Co*  
Attorneys



# UNITED STATES PATENT OFFICE.

JACOB ACKERMAN, OF SPINNERSTOWN, PENNSYLVANIA.

## COLLAPSIBLE OR KNOCKDOWN CRATE.

No. 814,500.

Specification of Letters Patent.

Patented March 6, 1906.

Application filed April 11, 1905. Serial No. 254,936.

*To all whom it may concern:*

Be it known that I, JACOB ACKERMAN, a citizen of the United States, residing at Spinnerstown, in the county of Bucks and State of Pennsylvania, have invented certain new and useful Improvements in Collapsible or Knockdown Crates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to collapsible or knockdown crates; and its object is to provide a simple and durable device of this character all portions of which are permanently connected, but which can be folded and locked into a compact bundle and which can be quickly set up and utilized for holding eggs or other articles.

Another object is to provide novel means for locking parts of the crate when set up, so as to hold them rigidly connected and capable of withstanding rough usage.

With the above and other objects in view the invention consists of a crate comprising a base and end and side walls. The end walls are adapted to fold inward and to be overlapped by the sides, which are hinged to the base at different elevations. The top of the crate is hinged to one of the side walls in such a manner as to be capable of folding backward thereon when the crate is collapsed. Means are employed for locking the parts of the crate in folded position, and additional means are utilized for securing the end and side walls together when the crate is set up.

The invention also consists of the further novel constructions and combinations of parts hereinafter more fully described, and pointed out in the claim.

In the accompanying drawings I have shown the preferred forms of my invention.

In said drawings, Figure 1 is a perspective view showing the crate collapsed. Fig. 2 is a longitudinal section therethrough. Fig. 3 is a perspective view of the means used for securing the end and side walls together; and Fig. 4 is an elevation of the locking-lever of said securing means, the retaining part thereof being removed.

Referring to the figures by numerals of reference, 1 is the base of the crate, having end flanges 2 and side flanges 3 and 4, which are of different heights, flange 4 extending above flange 3 a distance equal to the thickness of

one of the side walls of the crate. These side walls 5 and 6 are connected to the flanges 3 and 4, respectively, by means of hinges 7, which are so disposed as to permit said walls to swing inward over the base 1. End walls 8 are similarly connected to the end flanges 2 by means of hinges 9, and one of these end walls is provided near its upper end and within the side edges with recesses 10, which are for the purpose hereinafter set forth. Angular straps 11 are secured to the upper edge of the wall 6 and are supported thereon, and these straps are connected by links 12 with leaves 13, which are secured upon the top 14 of the crate. The links 12, as well as the adjoining ends of the straps connected to them, are disposed within grooves 15, which are formed within the adjoining edge of the crate-top 14. A retaining-plate 25 is secured to each end of each side wall, and a lever 26 is pivoted to it, said plate serving to hold the lever in a groove 27, formed in the crate-wall. The lever 26 has an angular head 28, and a spring 29 is employed for causing said head to automatically engage a hook 30, secured to the end wall 8. One wall of each groove 27 is cut away, as at 31, so as to enable a finger to be inserted therein to press on lever 26 and release it from the hook 30. A hasp 21 may be used for securing the top 14 when the crate is set up. Eyes 23 extend from the ends of top 14, and hooks 24 extend from the end flanges 2.

When it is desired to collapse the crate herein described, the top 14 is raised and swung around upon the outer face of side wall 6. Levers 26 are then disengaged from hooks 30. The end wall containing grooves 10 is next swung inward upon the base 1, and the other end wall is swung into position thereon, and its hooks 30 will rest within the grooves 10. Side wall 5 is then swung over the end walls and is in turn overlapped by the wall 6 and the top resting thereon. The parts are locked in their collapsed position by the hooks 24 engaging eyes 23. It will be seen that when the crate is folded in this manner it occupies the minimum space. The device can be quickly set up by reversing the operation above described.

In the foregoing description I have shown the preferred form of my invention; but I do not limit myself thereto, as I am aware that modifications may be made therein without departing from the spirit or sacrificing the



advantages thereof, and I therefore reserve the right to make such changes as fairly fall within the scope of my invention.

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

A collapsible crate comprising a base, end and side flanges extending from the base, said side flanges being higher than the end flanges, end and side walls hinged to the end and side flanges, respectively, said end walls being adapted to fold inward upon the base and the side walls adapted to fold inward over the end walls and to overlap, a top, links connecting the top with one of the side walls and constituting hinges, said top adapted to swing backward and lie flat upon the side walls to which it is connected when the crate is collapsed, each of the side walls having recesses adjacent its ends, and grooves connecting with the recesses and extending from the up-

per edges of said walls, a retaining-plate secured over each recess, a spring-pressed lever pivotally mounted between each retaining-plate and the end wall of its recess, one end of the lever extending across one end of the groove, heads upon the levers and hooks extending inwardly from the end walls and adapted to be automatically engaged by the heads of the levers when the crate is set up, one of the end walls having recesses therein to receive the hooks on the other end wall when the crate is collapsed, and means upon the end flanges of the base for engaging the top to hold the crate together when collapsed.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JACOB ACKERMAN.

Witnesses:

JOHN S. KRAMMES,  
OSWIN C. KEIPER.