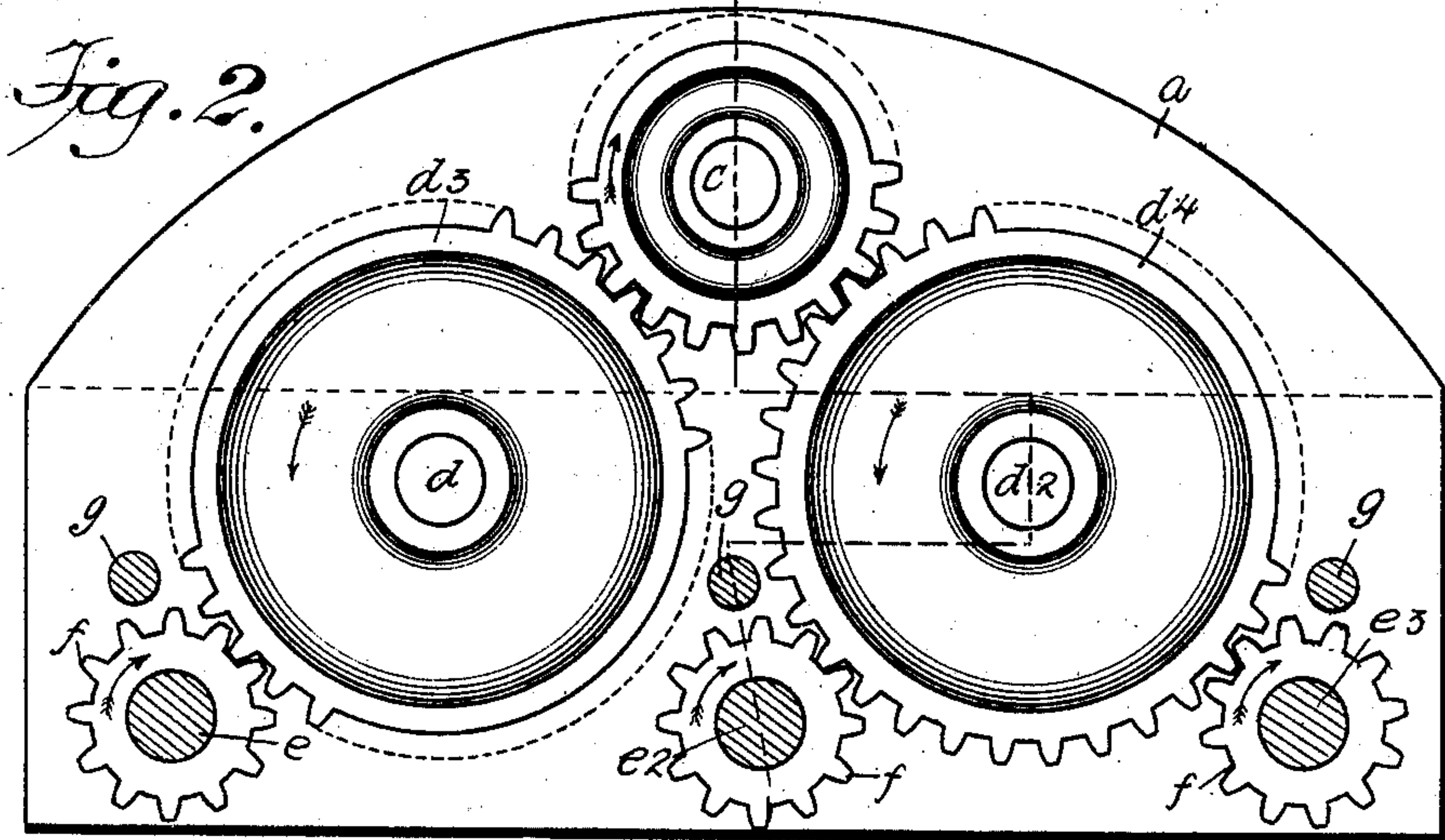
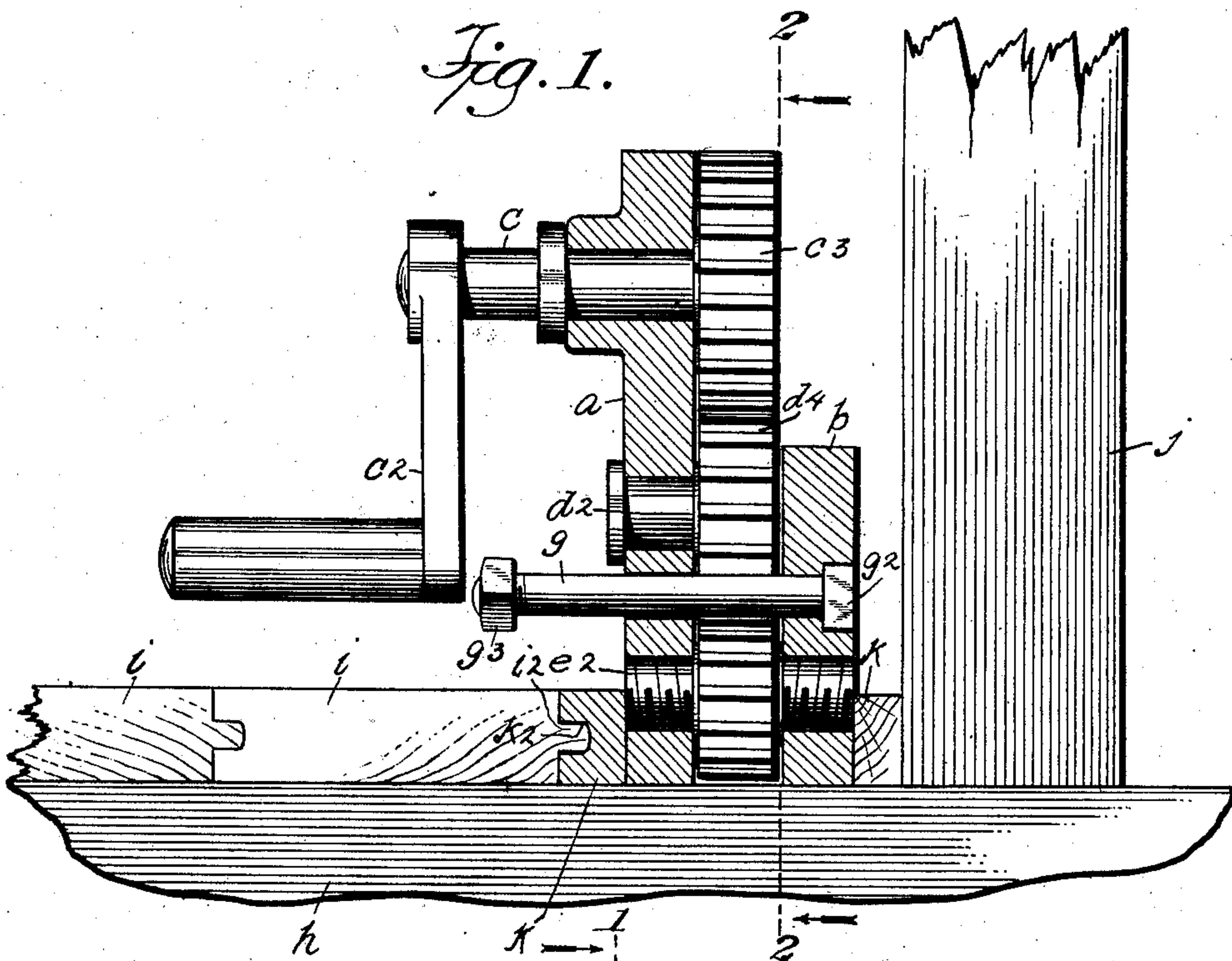


No. 859,624.

PATENTED JULY 9, 1907.

P. O. STANGELAND.
FLOOR CLAMP.

APPLICATION FILED MAR. 21, 1907.



WITNESSES

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UNITED STATES PATENT OFFICE.

PEDER O. STANGELAND, OF WILLIAMS BRIDGE, NEW YORK.

FLOOR-CLAMP.

No. 859,624.

Specification of Letters Patent.

Patented July 9, 1907.

Application filed March 21, 1907. Serial No. 363,565.

To all whom it may concern:

Be it known that I, PEDER O. STANGELAND, a citizen of the United States, and residing at Williams Bridge, in the county of New York and State of New York, have invented certain new and useful Improvements in Floor-Clamps, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to clamps designed for use in pressing or forcing the boards of a floor together, and the object thereof is to provide an improved device of this class which may be conveniently employed at any stage in the operation of laying a floor, but which is particularly designed for use when the floor is practically completed, the said device being of slight transverse thickness or dimensions in order that it may be conveniently placed between the floor boards and a partition wall or similar structure, or between the floor boards and the stanchions or uprights of a partition wall.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which;—

Figure 1 is a sectional end view of my improved floor clamp and showing the method of operating the same; and, Fig. 2 a sectional side view of the clamp.

In the practice of my invention, I provide a main plate or frame member *a* and a supplemental plate or frame member *b*, said supplemental plate or frame member being preferably of less vertical height than the main plate or frame member *a*.

Mounted in the top portion of the main plate or frame member *a* is a crank shaft *c*, the shaft *c* being provided at its front end with a crank *c*² and at its rear end with a gear wheel *c*³, and mounted in the central portion of the main plate or frame *a* and longitudinally thereof and suitably spaced are two short shafts *d* and *d*² provided respectively with gear wheels *d*³ and *d*⁴, and the gear wheel *c*³ meshes with both of the wheels *d*³ and *d*⁴.

In the bottom portion of the plates or frame members *a* and *b* are mounted, in the form of construction shown, three shafts *e*, *e*² and *e*³, each of which is provided with a small gear wheel or pinion *f*, and the shafts *e*, *e*² and *e*³ are provided at their opposite ends with reverse threads and the bores in the plates or frame members *a* and *b* through which said shafts pass are correspondingly threaded. The arrangement of the shafts *e*² and *e*³ is such, in the form of construction shown, that the pinions *f* mounted thereon both mesh with the gear wheel *d*⁴ on the shaft *d*², while the pinion *f* on the shaft *e* meshes with the gear wheel *d*³ on the shaft *d*, and by means of this construction the shafts

e, *e*² and *e*³ will all turn in the same direction, and the direction in which said shafts turn will be controlled by the direction of the shaft *c* when operated by the crank *c*². The plates or frame members *a* and *b* are also connected by rods *g* which are passed through and on which said plates are movable, and said rods *g*, in the form of construction shown, are provided at their rear ends with heads *g*² which are counter-sunk in the plate or frame member *b* and at their front ends with nuts *g*³.

In Fig. 1 of the drawing, I have shown at *h* a floor beam or support, and at *i* a number of floor boards which are of the ordinary tongue and groove construction, and I have also shown at *j* an upright or stanchion of a partition construction, and in the practice of my invention, I preferably connect with the bottom of the plate or frame member *a*, a longitudinal strip *k* having a groove *k*² adapted to receive the tongue *i*² of the adjacent floor board *i*.

The operation of my improved floor clamp will be readily understood from the foregoing description when taken in connection with the following statement thereof. Whenever it is desired to use the floor clamp so as to force the floor boards together, and especially when the laying of the floor is almost completed, the clamp is placed between the wall or stanchion *j* and the adjacent floor board as shown in Fig. 1, and the shaft *c* is turned in the proper direction by means of the crank *c*². This operation turns the shafts *e*, *e*² and *e*³ so as to force the plates or frame members *a* and *b* apart, and this operation forces the boards *i* of the floor together as will be readily understood, and by turning the shaft *c* in the opposite direction the pressure may be released and the clamp device removed. In Fig. 1 of the drawing, I have shown a strip *k* which is placed between the wall or stanchion *j* and the clamp device, but this is not absolutely necessary and may or may not be done. When it is desired to force the floor boards together before the laying of the floor is substantially completed, a stop or similar device is secured to one of the floor beams *h* and the clamp is placed between said stop or similar device and the adjacent floor boards. It will be understood, of course, that the lateral movement of the plates or frame members *a* and *b* is limited to the width of the gear wheels and the pinions *d*³, *d*⁴ and *f* and to the length of the shafts *e*, *e*² and *e*³, but the dimensions of these parts may be regulated as desired and a comparatively slight lateral movement of the plates or frame members *a* and *b* is all that is necessary.

Although, I have described my improvement as particularly adapted for use as a floor clamp it will be apparent that the same may be employed wherever devices of this class are required, and changes in and

modifications of the construction described may be made without departing from the scope of my invention as set out in the appended claims.

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

1. A clamp of the class described, comprising two parallel plates or frame members, shafts mounted in the bottom portion of said plates or frame members and provided with pinions, said shafts being provided on their
10 opposite ends with threads, gear wheels mounted in said plates or frame members and operating in connection with said pinions, and means for turning said gear wheels.

2. A clamp of the class described, comprising two parallel plates or frame members, shafts mounted in the
15 bottom portion of said plates or frame members and pro-

vided with pinions, said shafts being provided on their opposite ends with threads, gear wheels mounted in said plates or frame members and operating in connection with said pinions, and means for turning said gear wheels, comprising a crank shaft provided with a gear wheel 20 operating in connection therewith, said plates or frame members being also connected by transverse rods on which they are movable.

In testimony that I claim the foregoing as my invention I have signed my name in presence of the subscribing
25 witnesses this 18th day of March, 1907.

PEDER O. STANGELAND.

Witnesses:

J. HAROLD DOBBS,

JOHN H. BEHRMANN.