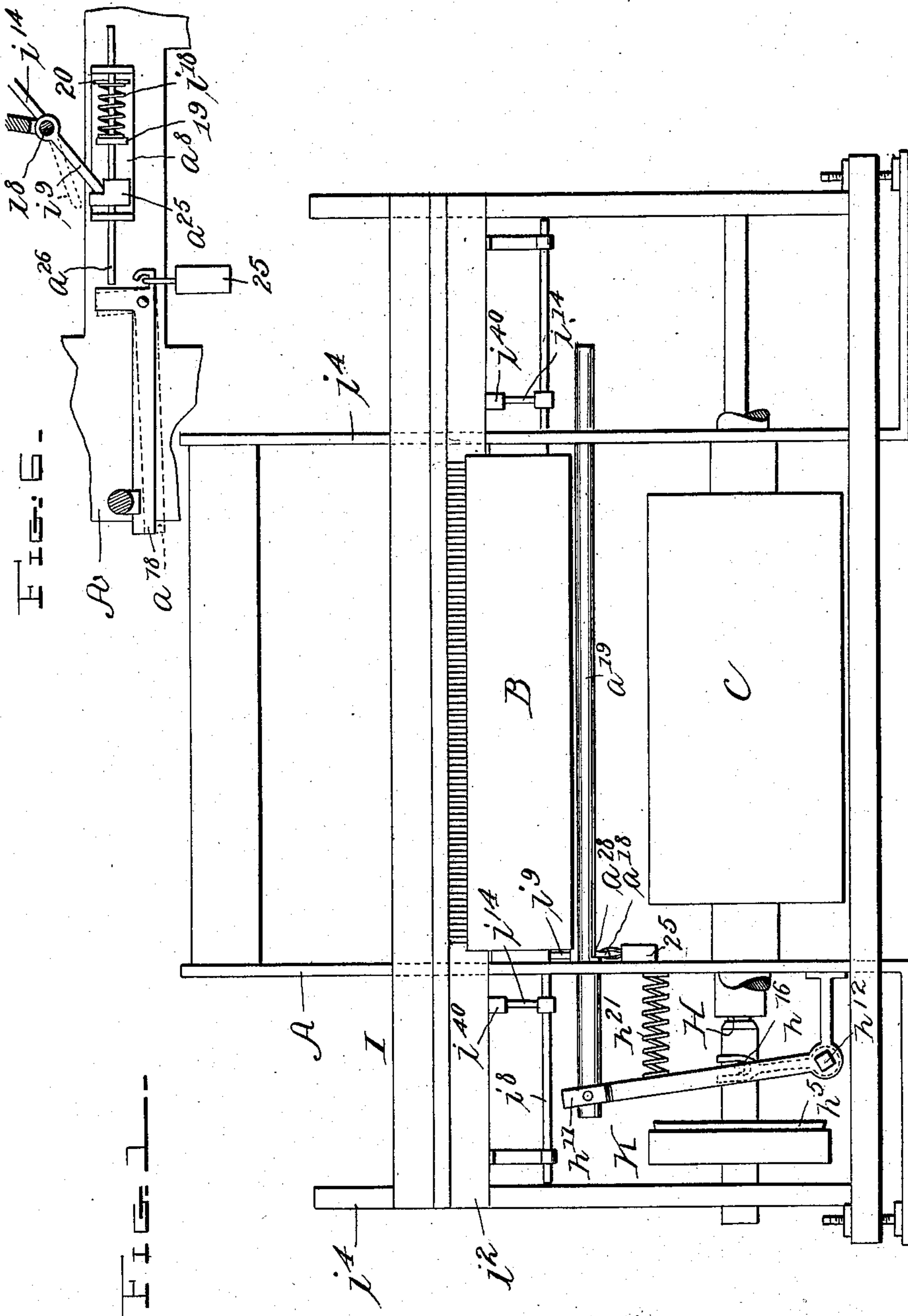


No. 889,650.

PATENTED JUNE 2, 1908.

A. A. WENDT.
STOP MECHANISM FOR LOOMS.
APPLICATION FILED JAN. 22, 1907.

3 SHEETS—SHEET 1.



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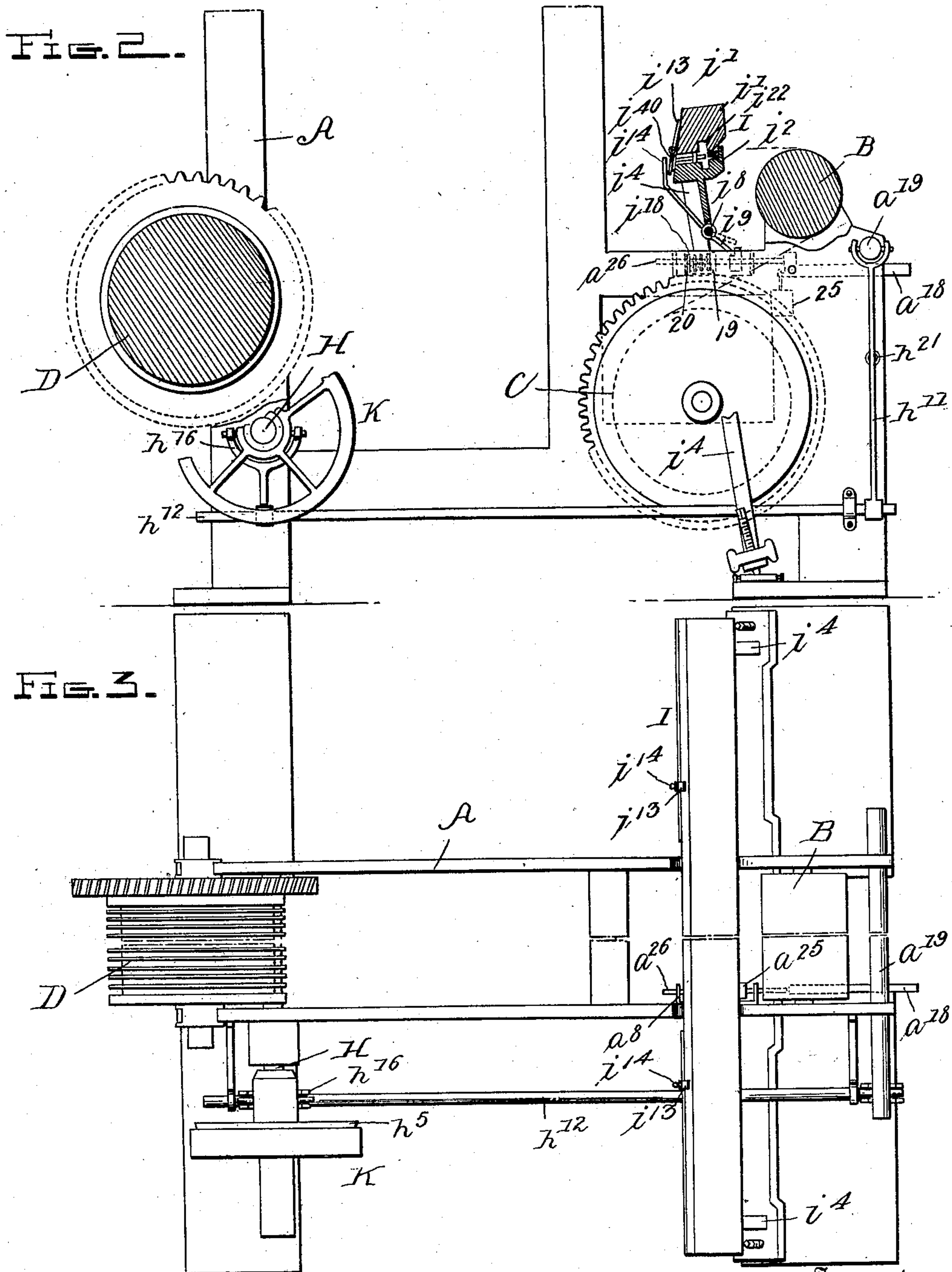


FIG. 3.

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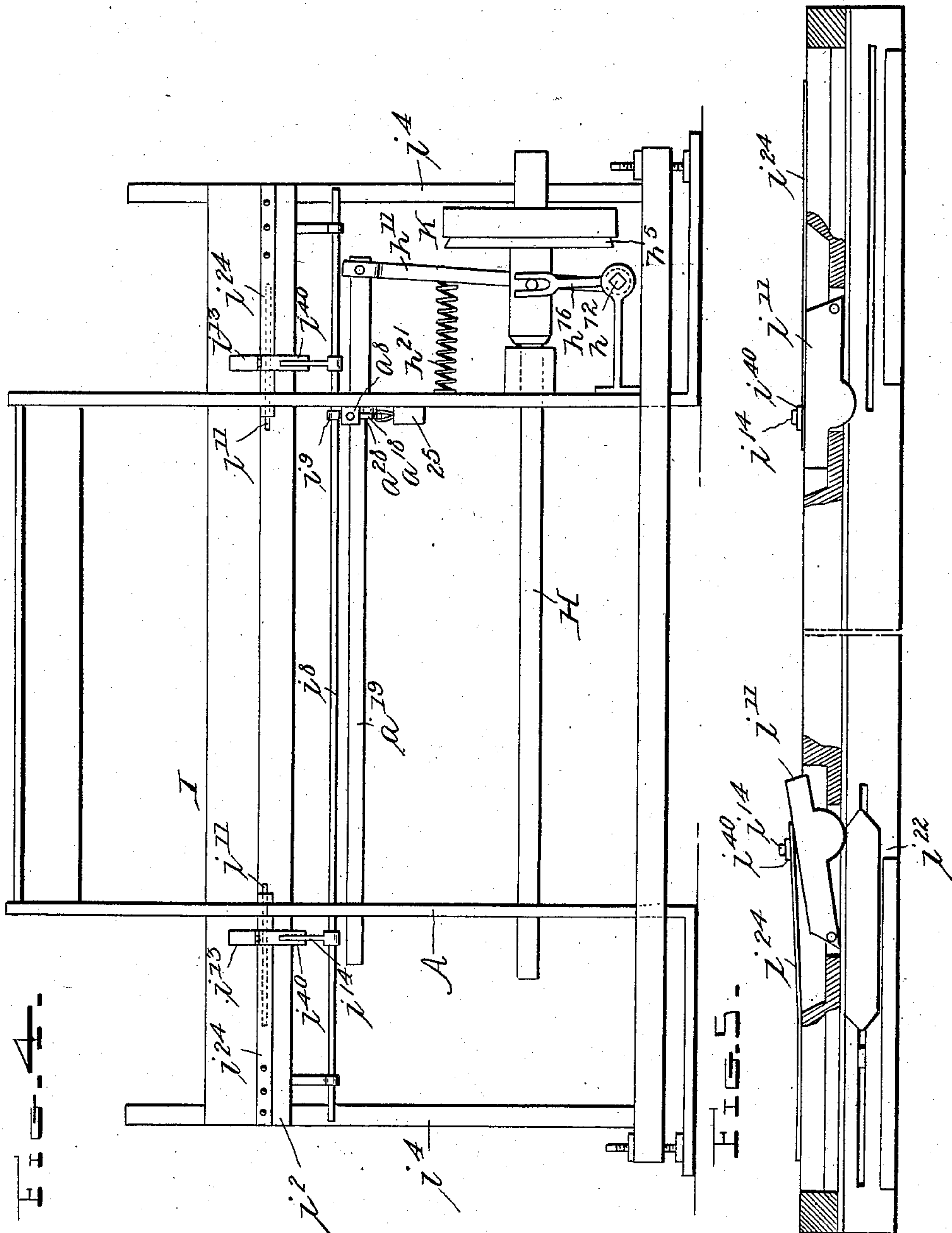
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UNITED STATES PATENT OFFICE.

ADAM A. WENDT, OF SOUTH EUCLID, OHIO.

STOP MECHANISM FOR LOOMS.

No. 889,650.

Specification of Letters Patent.

Patented June 2, 1908.

Application filed January 22, 1907. Serial No. 353,453.

To all whom it may concern:

Be it known that I, ADAM A. WENDT, citizen of the United States, residing at South Euclid, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Stop Mechanisms for Looms, of which the following is a specification.

This invention is an automatic stop mechanism for power looms, and has for its object to provide improved means for stopping the machine when the shuttle fails to carry from one shuttle box to the other, or, in short, to avoid a smash when the shuttle is not properly boxed. The purpose of the swinging members is to increase the motion imparted to the protector shaft.

The invention is illustrated in the accompanying drawings, in which

Figure 1 is a front elevation of the parts of the invention as applied to a loom, other parts of the loom being omitted as unnecessary to illustrate. Fig. 2 is a vertical sectional elevation. Fig. 3 is a plan view. Fig. 4 is a rear elevation of the batten. Fig. 5 is a plan or top view of the slay.

Referring specifically to the drawings, the main parts of the machine are indicated as follows: A is the frame, B is the guide roll, C is the cloth beam or roll, D is a warp beam, and I is the batten. These parts are all driven or operated in a manner which is immaterial to the present invention and need not be described here, except to say that H is the main shaft of the loom. This shaft is driven by means of a friction clutch K the movable member h^5 of which is operated by means of a yoke h^{16} carried by a rock shaft h^{12} extending from the front to the rear of the machine and supported in suitable bearings on the side of the frame.

Pivotally mounted on the frame of the machine, at the front thereof, is a bent lever a^{18} , the forwardly-projecting arm of which is held in position by means of a weight 25 suspended at the rear end thereof. Directly behind the rear upright arm of the bent lever is a guide a^8 holding a sliding bolt a^{26} to which is fixed a block a^{25} . The bolt a^{26} is held in retracted position by means of a spring i^{18} coiled between a small fixed bracket 19 and a pin 20; and the front end of the bolt a^{26} is in proper position to strike the upright arm of the bent lever a^{18} when said bolt is advanced. On the batten I is a stationary shaft i^8 extending across between the lay

standards or swords i^4 , and supported in hangers under the slay i^2 . This shaft has an arm or dagger i^9 , projecting downwardly and forwardly, and arms i^{14} which lap or project, at the upper end, over or behind swinging leaves or members i^{40} which are hinged to fixtures i^{13} fastened to the lay cap i' .

Pivotally mounted to swing in a slot in the rear wall of each shuttle box is a binder or friction piece i^{11} , and normally held in or forwardly by a spring i^{24} . This friction piece or binder receives the impact of the shuttle as it enters the shuttle box i^{22} and is thereby forced out or back against the tension of the spring i^{24} .

The shifter pole a^{19} extends across at the front of the machine, in convenient position to be manipulated, and it has at one end a shoulder a^{28} which engages against the bent lever a^{18} heretofore referred to, thereby holding said shifter pole against movement. The said pole is connected to the shifter arm h^{11} which is rigidly fixed to the front end of the rock shaft h^{12} , and at the rear end said shaft has a yoke arm h^{16} , as heretofore referred to, for throwing the clutch K into or out of engagement. A spring h^{21} , connected between the shifter arm h^{11} and part of the frame, tends to pull the movable clutch member h^5 away from the opposite member, to disengage the clutch.

As long as the bent or latch lever a^{18} is engaged behind the shoulder a^{28} the clutch remains in engagement and the machine is operated. When the shuttle carries well across from one box to the other it forces back the binder or pivot piece i^{11} causing said piece to strike the swinging plate i^{40} which in turn contacts against the arm i^{14} and rocks the shaft so that the dagger i^9 is lifted, as indicated in dotted lines in Fig. 2, and on the forward swing of the batten, it will pass over and miss the block a^{25} . But when the shuttle fails to carry across the shed or to be properly boxed the pivot piece i^{11} will not be swung back and consequently the dagger i^9 on the shaft i^8 will depend behind the block a^{25} and when the batten swings forward will strike said block and force the bolt a^{26} against the upright arm of the latch lever a^{18} , causing the forwardly-extending arm to drop from engagement with the shoulder a^{28} of the shifter pole, when the spring h^{21} will immediately pull the shifter arm h^{11} and rock the shaft h^{12} and disengage the clutch and accordingly stop the machine. The parts are

reset by hand by again moving the shifter pole a^{19} to engage the shoulder a^{28} over the latch lever.

I claim:

- 5 1. In a stop mechanism for looms, in combination, a lay having opposite shuttle boxes, pivoted binding pieces in the shuttle boxes, swinging plates hinged to the lay and extending across said pieces, a rock shaft
10 carried by the lay and having arms located behind and in the path of said plates and also having a dagger, a shifter to start or stop the machine, and latch devices controlling the shifter and actuated by the dagger.
15 2. In a stop mechanism for looms, in combination, a shuttle box, a pivoted binder located in the rear wall of each shuttle box and arranged to be pushed back by the shuttle when it enters the box, a rock shaft
20 extending across under the lay and having a projecting arm behind each shuttle box and also having a forwardly-extending dagger, a swinging plate carried by the lay and located behind each shuttle box and ar-
25 ranged to be struck by the binder when it is

pushed back and to strike the arm and rock the shaft to lift the dagger, a sliding bolt mounted on the frame of the machine in front of the lay and having a projection extending into the path of the dagger and arranged to 30 be struck thereby when the dagger is depressed and to be missed when the dagger is lifted, a bent latch lever pivoted on the frame and having an upright arm at the rear end which is struck by the bolt when the latter 35 is advanced, a shifter pole extending horizontally across the front of the machine and having a projection engaged by the latch lever, and means connected to the shifter pole to start and stop the main shaft of the ma- 40 chine, said means including a spring arranged to operate the same to stop the machine when the latch is released.

In testimony whereof I have affixed my signature, in presence of two witnesses.

ADAM A. WENDT.

Witnesses:

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