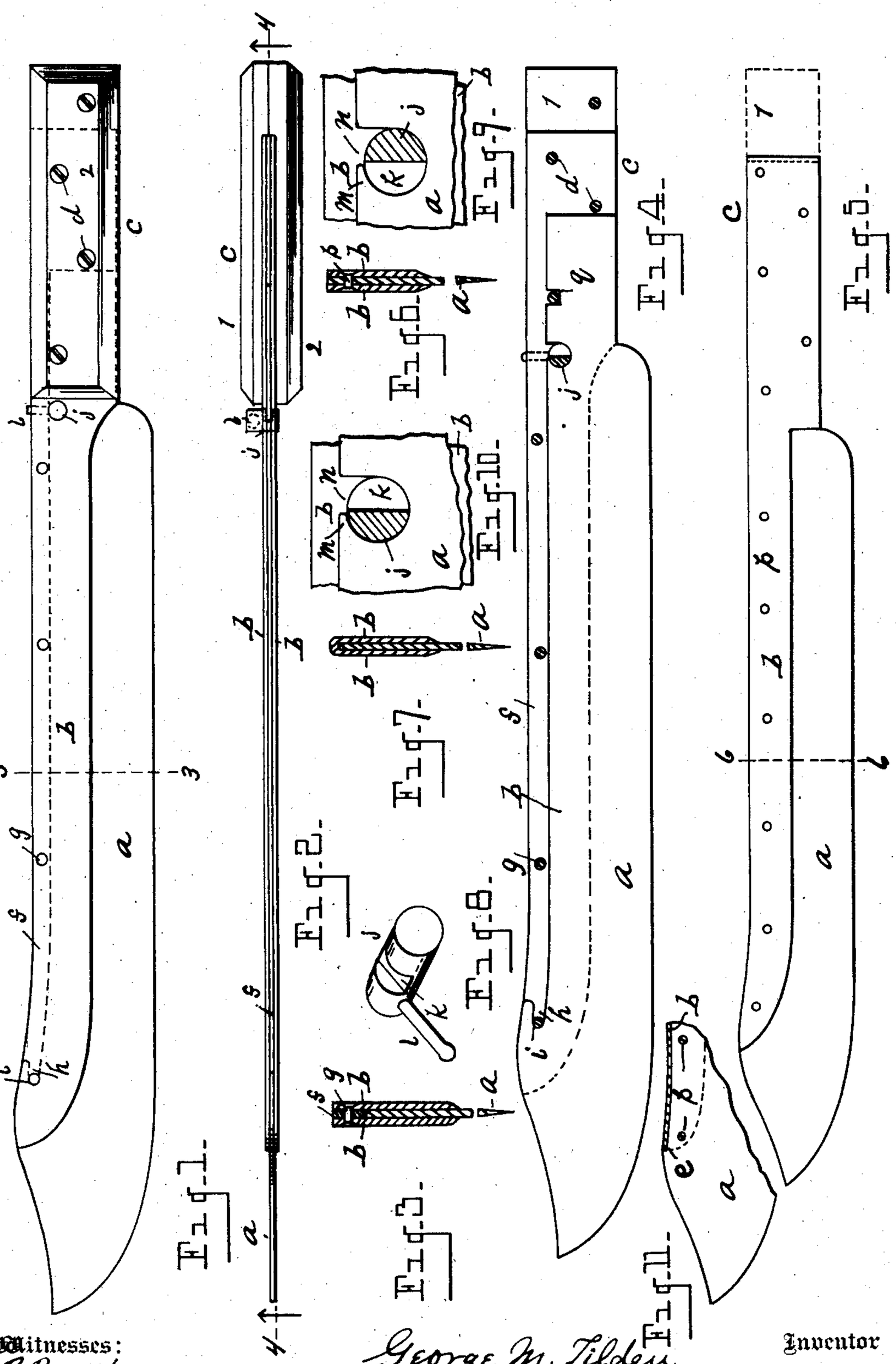
No. 826,700. PATENTED JULY 24, 1906.

G. M. TILDEN.

KNIFE.

APPLICATION FILED FEB. 6, 1905.



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GEORGE M. TILDEN, OF DETROIT, MICHIGAN.

KNIFE.

No. 826,700. Specification of Letters Patent. Patented July 24, 1906.

Application filed February 6, 1905. Serial No. 244,372.

To all whom it may concern:

Be it known that I, GEORGE M. TILDEN, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Knives and Analogous Articles, of which the following is a specification, reference being had to the accompanying drawings, which form a part of this specification.

My invention has for its object certain new and useful improvements in knives and analogous articles of manufacture; and it consists of the construction, combination, and arrangement of devices hereinafter described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a view in side elevation, illustrating features of my invention. Fig. 2 is a view in plan looking at the top of the knife shown in Fig. 1. Fig. 3 is a view in cross-section on the line 3 3, Fig. 1. Fig. 4 is a view in side elevation, showing one of the shields removed and parts in section. Fig. 5 is a view in side elevation, showing a modification of the invention. Fig. 6 is a view in cross-section on the line 6 6, Fig. 5. Fig. 7 is a view in cross-section, illustrating another modification of the invention. Fig. 8 is a detail view of the locking-cam. Fig. 9 illustrates the locking-cam in position to disengage the blade, and Fig. 10 shows the locking-cam in position to lock the blade in position. Fig. 11 is a fragmentary view showing the shield in section.

My invention is more particularly designed to provide an improved slicing-knife, although I do not limit myself solely thereto, inasmuch as features of the invention are adapted also for other kinds of knives, cleavers, and analogous articles of manufacture.

As pertaining to a slicing-knife my invention has for its chief feature to construct the blade from thin rolled steel and to give to the blade proper rigidity and firmness by means of one or more independent shields secured thereto at the upper edge of the blade, the shields being extended to form a portion of the rigid handle projecting longitudinally of the blade, the blade also being preferably extended to form a part of the handle, although the blade might be terminated at the point of the attachment of the handle to the extended ends of the shields without departing from my invention.

Another feature of my invention, although I do not limit myself solely thereto, is to provide a knife having a detachable blade and means to secure the blade in position, and whereby the blade may be readily disengaged from the shields and handle. My invention, however, in certain of its features is adapted also to blades having a rigid attachment to the shields.

In the drawings, *a* represents a knife-blade as above described. As applied to a knife it is preferably formed of thin rolled steel. It will readily be seen that the blades so formed may be readily struck out by a suitable die from a sheet of thin rolled steel—as, for example, from a sheet twenty-five one-thousandths of an inch in thickness. The sheet of rolled steel may be made of any desired percentage of carbon wanted, and the sheet of rolled steel may be thus readily suitably tempered before the blades are struck out therefrom, so that the blades will not require to be tempered, although I do not limit myself solely to the avoidance of retempering the blades. It will, however, be readily seen that blades so struck out from sheets of rolled steel and suitably tempered will have a uniform temper and being made thin may be readily sharpened as may be required, one feature of my invention being to make the blades so thin that they may be very readily sharpened and much more readily kept sharpened than blades as ordinarily formed. As blades have heretofore been constructed they have been found to be of different tempers, and it has been a hard matter to get the blade of even temper throughout, which difficulty, however, may be entirely overcome by constructing the blades as above described.

A shield is indicated at *b*. The shields are located, preferably, on both sides of the upper portion of the blade and may be formed of separate and independent strips of suitable metal. Instead, however, of the shields *b b* being formed of two independent strips of metal they might be formed of one integral piece bent or grooved, as indicated more particularly in Fig. 7, to extend over the upper edge of the blade and downward toward the edge a desired distance. The shield may be made of any suitable metal and might have a different temper from that of the blade, if desired. The shield may be made in various ways within the scope of my invention and may be secured to the blade in various ways, as by rivets, brazing, or otherwise. The rear ends of the shields are shown extended to

form a part of the handle *c*, other parts of the handle being made of any desired material. As shown, the rear extremities of the shields and blade are embraced between side portions 1 and 2 of the handle. In Figs. 4 and 5 portions of the handle are omitted. The rear extremities of the blades and shields extend longitudinally of the blade and are readily secured with other features of the handle, as by means of rivets or screws *d*. When the shields are made in the form shown in Fig. 7, I prefer to recess the upper portion of the blade, as indicated at *e*, Fig. 11, to receive the upper portion of the shields, so that the upper surface of the shield and the forward end of the blade will be flush.

In Figs. 1, 2, 3, and 4 I have shown a back strip (indicated at *f*) located above a portion of the upper edge of the blade and between the two shields, the shields being riveted together through said back piece or strip, as indicated at *g*. This back strip *f*, if employed, may have a spring temper and is preferably employed where the blade is made detachable. Where the back strip is employed, the forward end thereof has a tenon (indicated at *h*) to enter a corresponding socket *i* in the upper edge of the blade to hold the forward end of the blade in engagement therewith.

The blade and shields, toward the rear end thereof, when the blade is made detachable are provided with a suitable locking device to hold the knife in engagement with the shields. I do not limit myself solely to any particular locking device. That shown consists of a cam, (shown in detail in Fig. 8 at *j*,) said cam being shown provided with a groove *k* and with an operating knob or handle *l* to rotate the cam. The blade in this instance is provided adjacent to the cam with a shoulder, (indicated at *m*,) under which the body of the cam adjacent to the groove is moved, as shown in Fig. 10, to hold the blade in locked engagement with the shields, only one of the shields being shown in Figs. 9 and 10. By rotating the cam into position shown in Fig. 9 it is evident that the body of the cam adjacent to the groove *k* is moved out from in under the shoulder *m*, permitting the disengagement of the blade from the shields, the blade being formed with an opening *n* to permit the blade being moved past the cam.

In Fig. 6 the back strip *f* is omitted, and the shields have their upper edges flush with the upper edge of the knife-blade, the blade and the shields being permanently riveted together, as indicated at *p*. I prefer also where the blade is made detachable to construct its rear end with a recess (indicated at *q*) to receive one of the rivets or screws *d*. This will prevent a forward movement of the blade liable to cause its disengagement with the tenon *h* of the back strip.

The shields might have a spring tension, if desired, upon the surface of the blade and might be soldered in place also, if desired, when the blade is to be permanently engaged therewith. By making the shields to have a spring tension upon the blade a tight fit will be secured.

What I claim as my invention is—

1. A slicing-knife or analogous article of manufacture comprising a thin blade, a shield to stiffen the blade located on the surface of the blade at the upper edge thereof, and a handle extending longitudinally of the blade, the point of the blade extending forward of the shield and the cutting edge of the blade projecting below the shield sufficient to give clearance to the blade in slicing.

2. A slicing-knife or analogous article of manufacture comprising a blade formed of thin steel, a shield to stiffen the blade located on the surface of the blade at the upper edge thereof, and a handle extending longitudinally of the blade, said shield formed with an integral extension at the rear end thereof forming a part of the handle, the point of the blade extending forward of the shield and the cutting edge of the blade projecting below the shield sufficient to give clearance to the blade in slicing.

3. A slicing-knife or analogous article of manufacture comprising a thin blade, a shield to stiffen the blade located on the surface of the blade at the upper edge thereof, and a rigid handle extending longitudinally of the blade, said shield formed with an integral extension at the rear end thereof forming a part of the handle, said blade being detachable, the cutting edge of the blade projecting below the shields to give clearance to the blade in slicing.

4. A slicing-knife or analogous article of manufacture comprising a thin blade, shields to stiffen the blade located on the surfaces of the blade at the upper edge thereof, a backing located between the upper edge of the shields and engaged with the shields, and a handle extending longitudinally of the blade, the cutting edge of the blade projecting below the shields to give clearance to the blade in slicing.

5. A slicing-knife or analogous article of manufacture comprising a thin blade, shields located on the opposite surfaces of the blade at the upper edge thereof, a back strip located between the upper edges of the shields and secured to the shields, a handle extending longitudinally of the blade and rigidly secured to the shields, said blade being detachable, and means to lock the blade in place.

6. A slicing-knife or analogous article of manufacture comprising a thin blade recessed at the upper edge and longitudinally thereof, shields to stiffen the blade located on the opposite surfaces of the blade at the upper edge thereof, a back piece located between the upper edges of the shields and having a socket-and-tenon engagement at its for-

ward end with the blade, said shields and back strip being rigidly secured together.

7. A slicing-knife or analogous article of manufacture comprising a thin blade, shields to stiffen the blade located on the surface of the blade at the upper edge thereof, and a handle extending longitudinally of the blade, the point of the blade extending forward of the shields, the back of the blade cut away longitudinally thereof, and a back strip engaged in the cut-away portion of the blade and between said shields.

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

GEORGE M. TILDEN.

Witnesses:
M. L. SIMMONS,
JAMES F. HILL.