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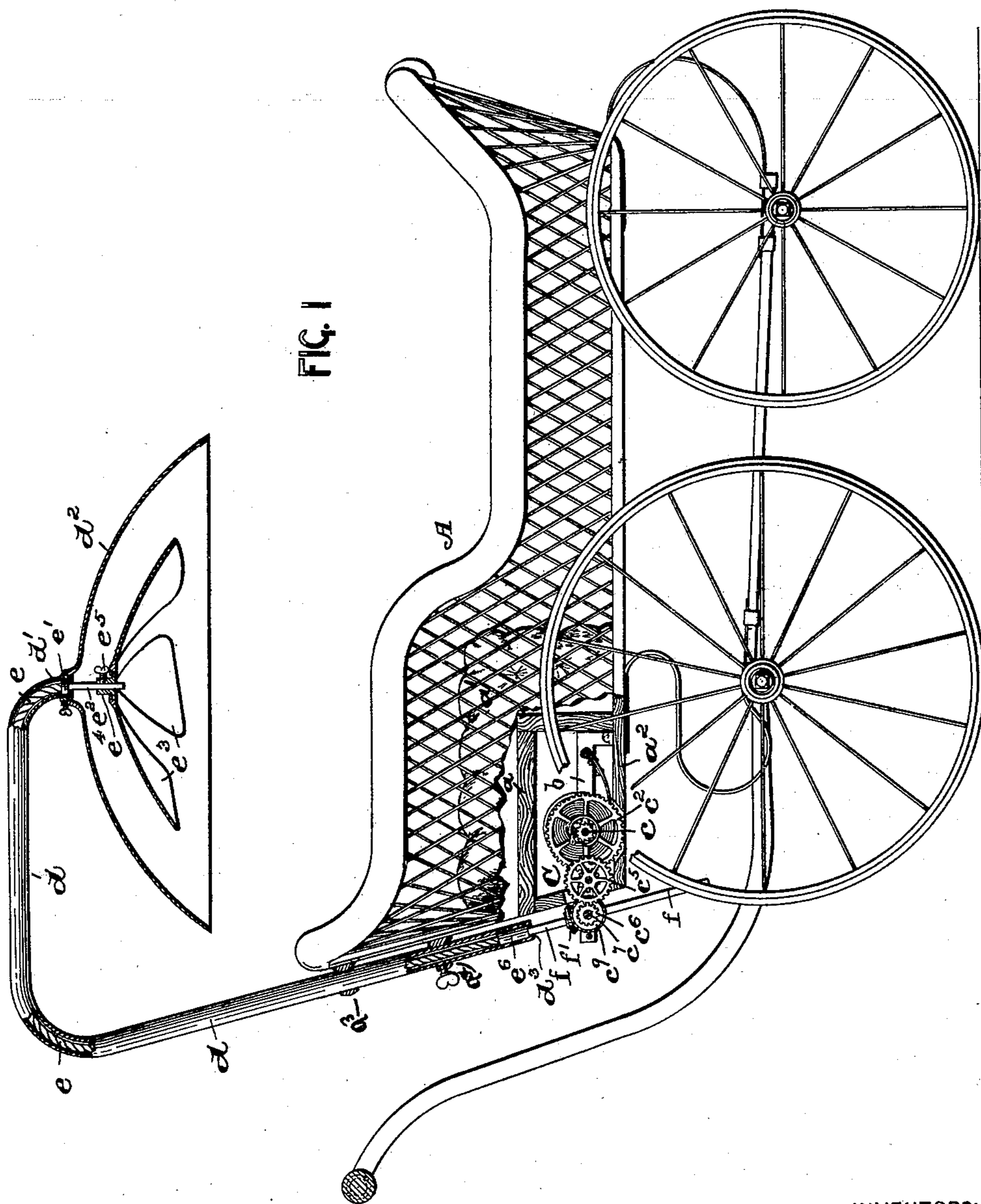
Patented May 2, 1899.

F. KRAUSE & R. C. BRACHHAUSEN.
FAN ATTACHMENT FOR VEHICLES.

(Application filed Apr. 5, 1898.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

Marcy J. Brundell.

Wm H. Baunfield, Jr.

INVENTORS:
FEODOR KRAUSE, AND
ROBERT C. BRACHHAUSEN,

BY
Fred C. Fraentzel,
ATTORNEY

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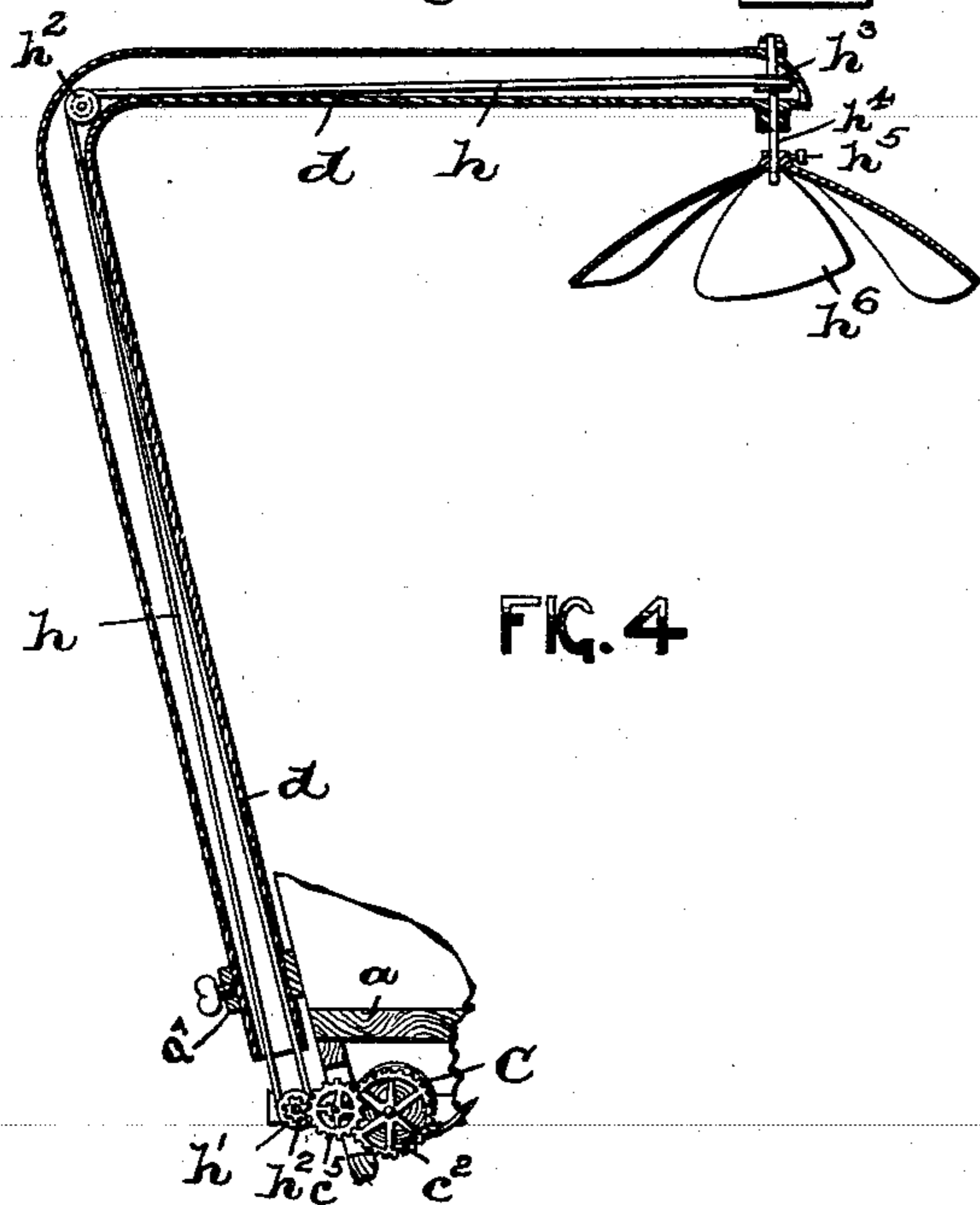
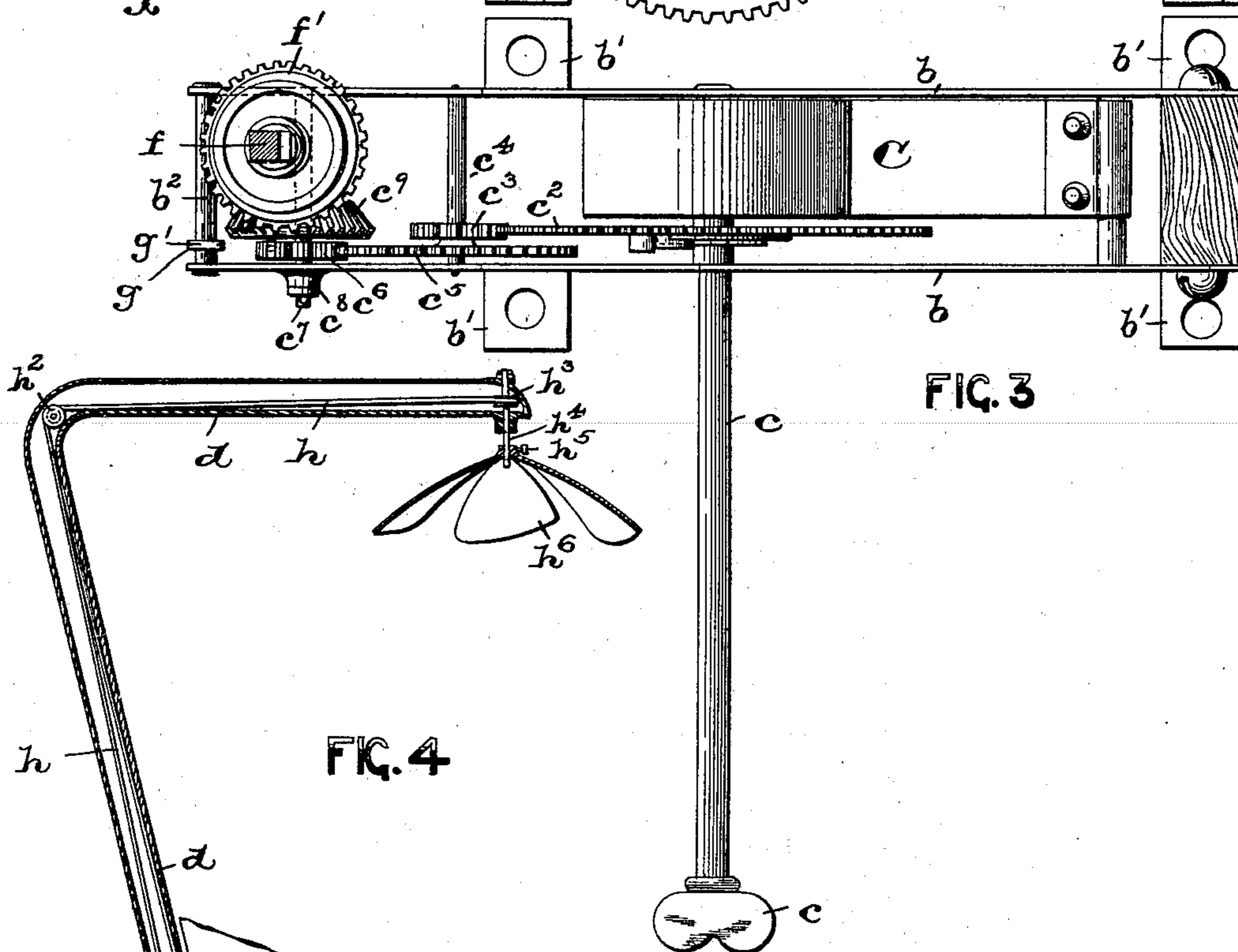
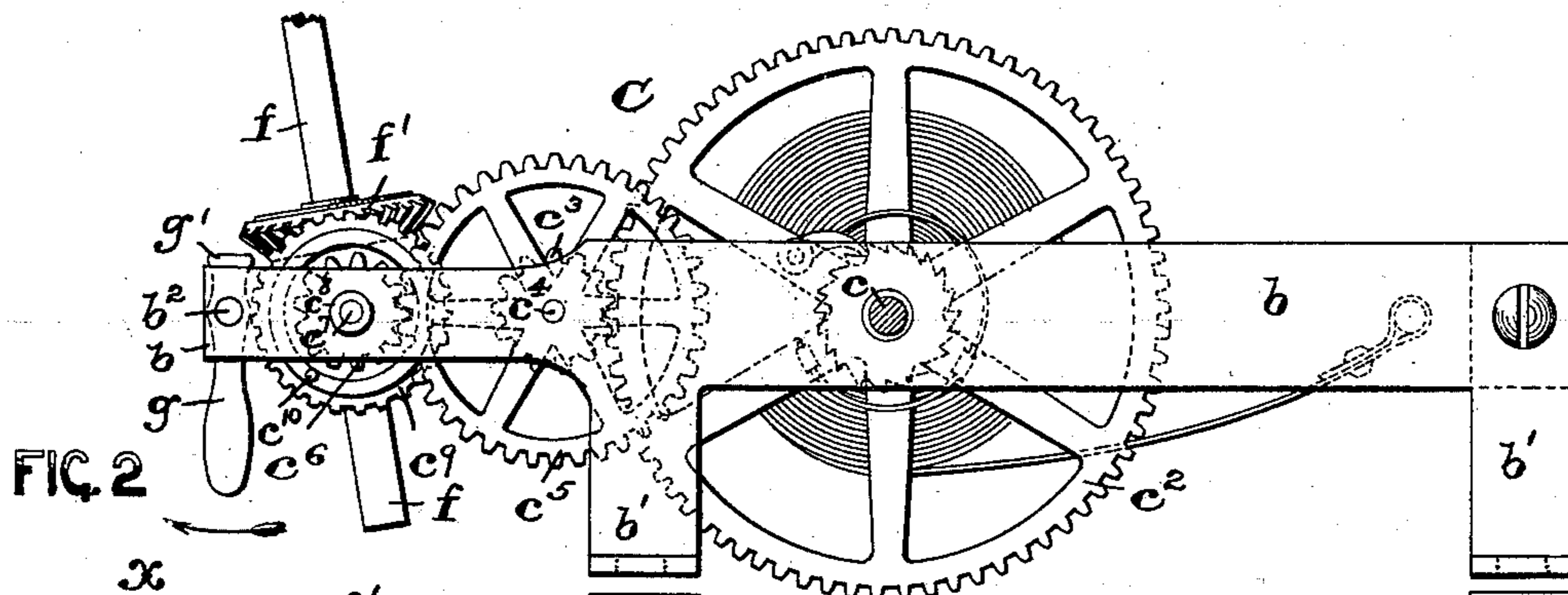
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WITNESSES:

Marcy J. Brussell

Wm. H. Campfield, Jr.

INVENTORS:
FEODOR KRAUSE, AND
ROBERT C. BRACHHAUSEN,

BY
Fred C. Fraentzel,
ATTORNEY

UNITED STATES PATENT OFFICE.

FEODOR KRAUSE AND ROBERT C. BRACHHAUSEN, OF RAHWAY, NEW JERSEY.

FAN ATTACHMENT FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 624,222, dated May 2, 1899.

Application filed April 5, 1898. Serial No. 676,527. (No model.)

To all whom it may concern:

Be it known that we, FEODOR KRAUSE and ROBERT C. BRACHHAUSEN, citizens of the United States, residing at Rahway, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Fan Attachments for Vehicles, &c.; and we 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to a novel construction of fan attachment for vehicles; and the invention has for its primary object to provide a novel arrangement for supporting a fan which can be used either with or without the parasol on the supporting-arm and which is adjustably as well as detachably connected with the body of the vehicle, the fan mechanism being driven from a suitable spring-motor on the body of the vehicle, whether the vehicle is in motion or is at a standstill.

A further object of this invention is to provide, in connection with the mechanism for operating the fan, a means for locking or holding the fan in its inoperative position.

A further object of the invention is to provide a novel means for raising or lowering the fan-support and the fan and parasol connected therewith and still permitting of the rotary motion of the fan and also providing a means for detaching the fan from the supporting-arm of the parasol.

The invention is designed to provide an effective and simply-constructed device for the purposes hereinabove stated which is easily applied to any description of vehicle and is especially adapted for use in connection with baby-carriages.

The invention therefore consists in the novel construction of fan attachment for vehicles and mechanism for operating the same, hereinafter fully described, and also in such novel arrangements and combinations of parts and the details of construction thereof, all of which will be fully described in the accompany-

ing specification and finally embodied in the clauses of the claim thereof.

The form of construction selected to embody the invention in an operative machine is illustrated in the accompanying drawings, in which—

Figure 1 represents a side elevation of one form of carriage with the rear portion of the same in vertical section, said view illustrating in connection with the vehicle the complete mechanism embodying the principles of our present invention. Fig. 2 is a side view of a spring-motor and part of the fan-driving mechanism, and Fig. 3 is a plan view of the said parts represented in said Fig. 2. Fig. 4 is a sectional view of a support and fan attachment for vehicles of a slightly-modified form of construction.

Similar letters of reference are employed in all of the above-described views to indicate corresponding parts.

In said drawings, A indicates a suitable vehicle, such as a baby-carriage, and a is the framework of the same under the seat a' thereof.

Suitably secured to the base a^2 of the carriage, beneath the seat a' , is a supporting-frame b , provided with legs b' , (illustrated more particularly in Figs. 2 and 3,) and operatively arranged between the sides of said frame b is a spring-motor C, of any well-known construction, adapted to be wound up by means of an arbor c , having a finger-piece c' , which when the device is secured on the body of the vehicle preferably extends from one side of the same. On said arbor c is the usual form of ratchet-wheel and main gear c^2 , which is in mesh with a pinion c^3 on an arbor c^4 for driving another gear c^5 on the same arbor. Said gear c^5 is in operative mesh with a pinion c^6 on a short arbor c^7 , rotatively arranged in a bearing c^8 on one of the sides of the supporting-frame b , and upon the inner end of said short arbor is a miter or bevel gear c^9 .

Adjustably secured in the usual forms of brackets a^3 and a^4 on the body of the vehicle is a tubular support d , having on its upper free end d' a detachable parasol d^2 of the usual construction. Within said tubular support d is a spiral or flexible shaft e , the

upper end of which has secured thereto a collar or bearing portion e' , rotatively fitting in the open end of the support d , and connected with the said collar e' is a downwardly-projecting stem e^2 , adapted to receive a suitable fan e^3 , which is made of any suitable material and is of a light construction. Said fan has a collar e^4 and a set-screw e^5 for detachably securing said fan on the end of the stem e^2 ; but it will be understood that any other suitable fastening means may be employed for this purpose, if desired. Secured to the lower end of said flexible shaft e is a suitable collar or bearing portion e^6 , which is rotatively arranged in the lower end of said tubular support d , and the same rests upon a supporting-shoulder d^3 , connected with the said support, substantially as represented in Fig. 1 of the drawings. Projecting from the lower surface of the said bearing portion e^6 and through the open end of the support d is an arm or stem f , which is angular in cross-section, preferably square, and on which is slidably arranged a bevel or miter gear f' , the teeth of which are at all times, owing to the weight of the said gear f' , in constant operative mesh with the gear-teeth of the bevel or miter gear c^9 , hereinabove mentioned. Thus it will be evident that the support d and the parts connected therewith can be raised or lowered at will and the shaft e and its fan is still operatively connected with the mechanism of the spring-motor C, or the support d and its parts can be entirely removed from the body of the vehicle, as will be clearly evident.

Should it be desired to arrest the rotation of the shaft e and the motion of the fan after the motor mechanism has been set in operation, we employ a lever or pawl g , pivoted on an arm b^2 or other suitable part of the frame b , which when slightly turned in the direction of the arrow x in Fig. 2 has its upper end g' brought in engagement with a pin or stud c^{10} , projecting from one side of the bevel or miter gear c^9 , and the mechanism of the spring-motor will be stopped until said pawl g is once more disengaged from its holding contact with the said pin c^{10} . Of course it will be evident that any other suitable stop mechanism may be employed for arresting the motion of the parts of the motor C and that of the shaft e and the fan connected therewith.

From the above description and an inspection of the drawings it will be seen that the support d and its parasol, connected therewith in the usual manner, can be used without the fan attachment by simply removing the fan from the stem e^2 , or it can be used in conjunction with the fan, which rotates beneath the opened parasol, or the parasol can be detached and the fan used without the parasol, thereby deriving many advantages not heretofore found in fan attachments for vehicles.

The invention is especially adapted for use in connection with baby-carriages, giving great comfort to the child in the carriage, and

especially is this so since the fan can be operated when the carriage is not in motion.

In lieu of the flexible shaft e we may use a belt h , which passes over a suitable pulley-wheel or grooved roller h' , operated from a toothed wheel h^2 , in mesh with the gear-wheel c^5 of the spring-motor C. Said belt h also travels over a pair of grooved wheels h^2 in the support d and over a grooved wheel h^3 on a stem h^4 , rotatively arranged in bearings in the upper end of the support d , all of which is clearly illustrated in Fig. 4. Said stem h^4 extends in a downward direction beneath the upper end of the support d and has detachably secured thereon, by means of a set-screw h^5 , a fan h^6 of the construction hereinabove set forth and illustrated in connection with the construction represented in said Fig. 1. Although the arrangement of the mechanism represented in said Fig. 4 is perfectly practical, the construction illustrated more particularly in Fig. 1 is the preferred form of construction.

Of course it will be understood that changes may be made in the general arrangements and combinations of the several parts of mechanism without departing from the scope of the present invention. Hence we do not limit our invention to the exact arrangements and combinations of the several parts herein described, and illustrated in the accompanying drawings, nor to the exact details of the construction thereof.

Having thus described our invention, what we claim is—

1. In a wheeled vehicle, the combination, with the body of the vehicle, of a tubular support, a flexible shaft rotatively arranged in said support, a fan on the upper end of said shaft, a spring-motor on said vehicle, and means for operatively connecting the lower end of said shaft with said motor, consisting, essentially, of a miter or bevel gear slidably and operatively arranged on said shaft and a miter or bevel gear and intermediate gear mechanism connected with said motor, substantially as and for the purposes set forth.

2. In a wheeled vehicle, the combination, with the body of the vehicle and bearings on the body of said vehicle, of a tubular support adjustable vertically in said bearings, a flexible shaft rotatively arranged in said support, a fan on the upper end of said shaft, a motor on said vehicle, and means for operatively connecting the lower portion of said shaft with said motor, consisting, essentially, of a miter or bevel gear slidably and operatively arranged on said shaft and a miter or bevel gear and intermediate gear mechanism connected with said motor, substantially as and for the purposes set forth.

3. In a wheeled vehicle, the combination, with the body of the vehicle and bearings on the body of said vehicle, of a tubular support adjustable vertically in said bearings, a flexible shaft rotatively arranged in said sup-

port, a stem on the upper end of said shaft, a fan on said stem, an arm or stem connected with the lower end of said shaft and projecting from said support, a miter or bevel gear slidably but operatively arranged on said arm or stem, a spring-motor on said vehicle, and a miter or bevel gear in mesh with said miter or bevel gear on said arm or stem connected with the lower end of said flexible shaft and operated from said motor, substantially as and for the purposes set forth.

4. In a wheeled vehicle, the combination, with the body of the vehicle, and bearings on the body of the vehicle, of a tubular support adjustable vertically in said bearings, a flexible shaft rotatively arranged in said support, a collar e' on said shaft rotatively fitting in the upper end of said support, a downwardly-projecting stem e^2 connected with said collar, a parasol detachably arranged on said end of

the support, and a fan detachably arranged on said stem e^2 , a collar or bearing portion e^6 on the lower end of said shaft and rotatively arranged in said support, an arm or stem f extending downward from said collar or bearing portion e^6 , a miter or bevel gear slidably but operatively arranged on said arm or stem f , a spring-motor on said vehicle, and a miter or bevel gear in mesh with said miter or bevel gear on said arm or stem f , and operated from said motor, substantially as and for the purposes set forth.

In testimony that we claim the invention set forth above we have hereunto set our hands this 2d day of April, 1898.

FEODOR KRAUSE.

ROBERT C. BRACHHAUSEN.

Witnesses:

FREDK. C. FRAENTZEL,
W. B. FRAENTZEL.