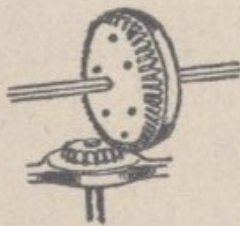
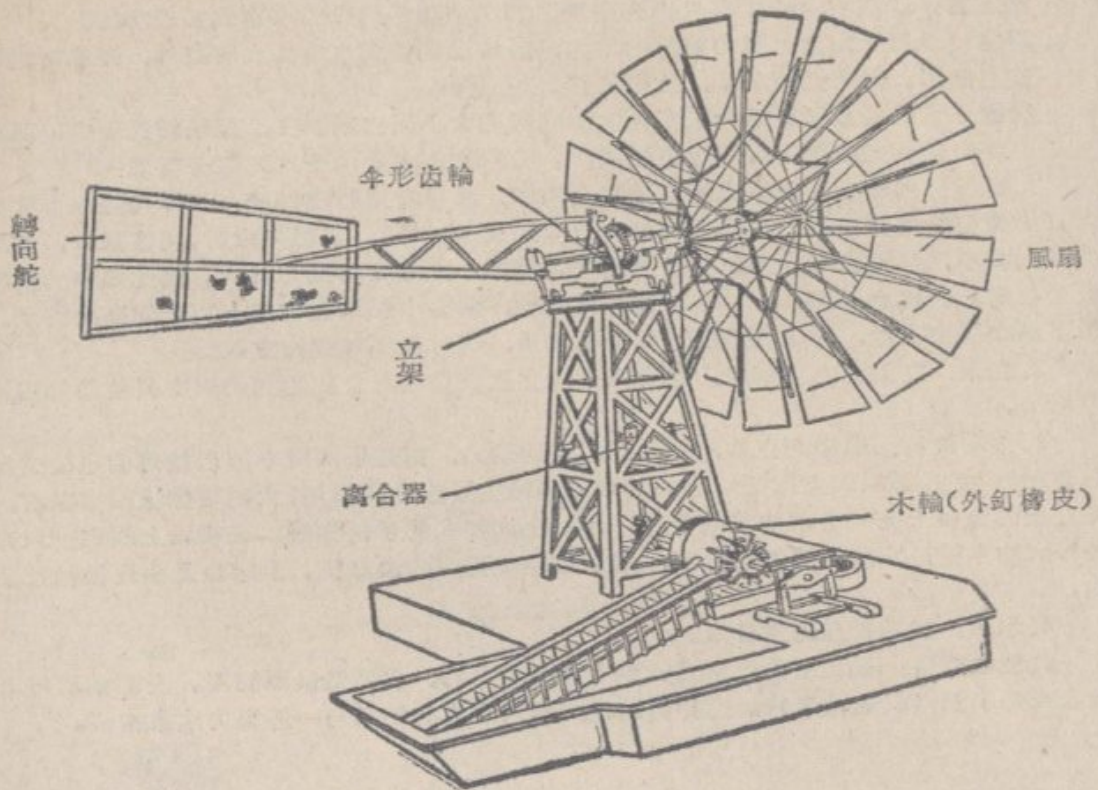
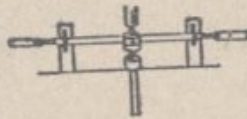


Agricultural Tools: Wind-powered Waterwheel

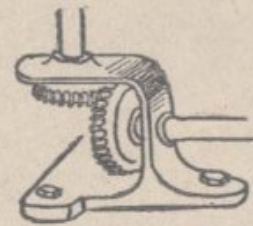
第 51



伞形齿轮



离合器



伞形齿轮

全国农具展览会编
科学普及出版社出版

农田排灌机械类
每页定价一分

TITLE

Image 1 Wind-powered waterwheel (zidong zhuanxiang fengli shuiche 自动转向风力水车)

DATE

1958

CREATOR

Unknown

PUBLISHER

Kexue puji chubanshe

RIGHTS

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DESCRIPTION

Irrigation of fields has long been a tiring part of daily farm labor. The wind-powered waterwheel—proposed by the Research Office for Agricultural Tools of the Agricultural Ministry of Jiangxi Province that has built on earlier models taken from Zhejiang and Jiangsu Province—can also provide electric light when a generator is installed.

Source: No. 51 in Quanguo nongju zhanlanhui (ed.), *Recommended exhibits of the National Exhibition of Agricultural Tools—Farm land irrigation machinery* (Quanguo nongju zhanlanhui – tujian zhanpin – nongtian paiguan jixie 全国农具展览会 - 推荐展品 - 农田排灌机械) (Beijing: Kexue puji chubanshe, 1958).

自动轉向風力水車

創造者：江西省农业厅农具研究室根据浙江和江苏的風力水車改装成功的。

用途：适用于南方有風力資源的地方，除帶动龙骨式水車提水灌溉外，还能帶动發电机發电照明。据研究室試驗，效能很好。

构造：它的特点是風扇叶张开角度能隨風力大小而自动改变，保證轉速稳定。而且能隨風向自动轉变位置，所以适应性很广。它的构造主要由下列五部分组成：

1、風輪：風輪和一般風車的風輪构造相同，風扇叶用竹皮編成，张开角度由彈簧保持（彈簧与風扇的关系，和門上的折頁与門的关系一样）。当風力大时，角度张大，接受的風力就小，風力小时，彈簧迫使風扇叶角度縮小，接受的風力就大。因此風車的轉速較为稳定。在風車尾部裝有竹皮編成的轉向舵，使整个風車在立架上可以隨風向轉动。为了轉向輕便灵活，在風輪座上装两个小滾輪，同时也能够支持立架。

2、立架：立架由木料制成，共有四个大立柱。立柱与立柱之間由很多斜拉条加强构成框架。

3、傳动机构：風扇到立架，立架到水車的动力，都是借两对伞形齿輪傳动来改变軸的轉动方向的。風扇到立架处的这一对伞形齿輪主要起加快作用，大約可加快四倍左右。在立架的竖軸上有一个斜槽式离合器，由一个杠杆式的手柄操縱。在橫軸上固定一只直径較大的木輪，它的輪緣釘着橡皮，用它帶动照明用的發电机。水車也是由这根軸帶动的。

4、水車：就是普通的龙骨車。

5、發电設備：是利用自行車上的摩电器来發电的，主要是供照明用。全部軸承可用軸套或彈子盘（滾动軸承）。这种自动轉向風力水車的使用与一般風力水車相似。

TITLE

Image 2 Wind-powered waterwheel (zidong zhuanxiang fengli shuiche 自动转向风力水车)
Description

DATE

1958

CREATOR

Unknown

PUBLISHER

Kexue puji chubanshe

RIGHTS

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DESCRIPTION

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