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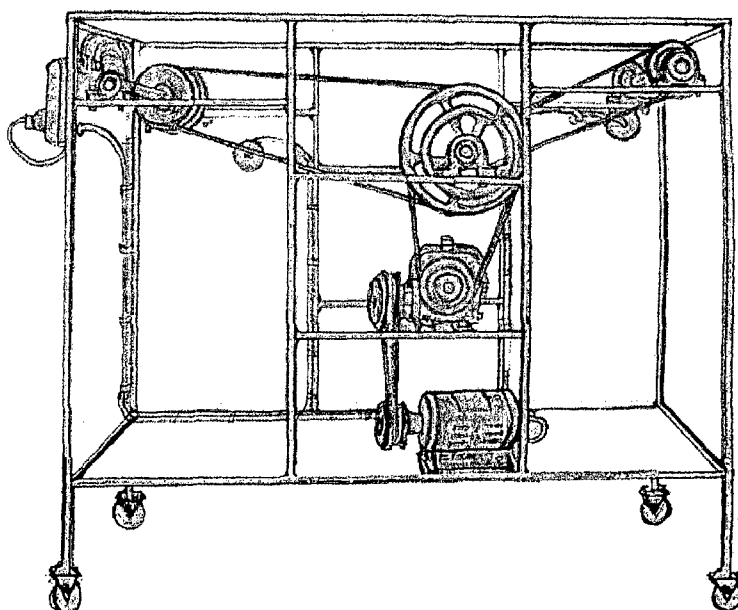
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(54) Title: SILK DENTAL FLOSS MACHINE



(57) Abstract: The Silk Dental floss Machine according to the present invention is comprising; machine frame and all component installed in one box, whereof motor as power transmission to extruder core and increase rotating speed for raw silk filament spindle core. Hot pipe as beeswax warmer which made from stainless steel pipe having hot coil inside and control temperature by thermostat. 7 main and subordinate organized cores and free roller for made silk filament flat and extruding roller for made silk filament flat and also eliminate beeswax surplus. There are 2 reel-eliminate beeswax surplus cores and clean the silk filaments before keep into bobbins at 5 bobbins per time. The Silk Dental Floss which passed extruding process, organized process, unwaxed beeswax surplus process are flat, gentle, smooth and gently inserted between teeth.



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TITLE OF THE INVENTION**SILK DENTAL FLOSS MACHINE****RELATED INVENTIONS.**

- 5 Engineering with respect to the silk dental floss machine.

BACKGROUND OF THE INVENTION

The conventional dental floss machine inventions in the present are comprising of machine frame which driving motor is installed. The said motor is for power supply unit for control the related rotating speed of silk roller and silk shuttle for keep the silk thread. This roller will press and pull the silk thread from raw silk thread shuttle and passes to coating agent container. Then send to roller which have heater underneath, next send to another roller to remove the over coated material. But the present machine have no efficiency to remove the over coated material as there are some residue coating material varied in each manufacturing process. In addition, the silk dental floss is not smooth as system cannot control silk thread size in every production process and cannot increase production capacity as required in time.

SUMMARY OF THE INVENTION

The objective of silk dental floss machine according to this invention is solve the above disadvantage by separate the Silk filament production and waxed process from extruding process. This silk dental floss machine having machine frame and all component installed in one box, whereof motor as power transmission to extruder core and increase rotating speed for raw silk filament spindle core. Hot pipe as beeswax warmer which made from stainless steel pipe having hot coil inside and control temperature by thermostat. 10 organized cores and free roller for extrude and made silk filament flat and also eliminate beeswax surplus. There are 2 re-eliminate beeswax surplus cores and clean the silk filaments before keep it onto bobbins. Development of the above components by extruding process, organized process, un-waxed surplus beeswax process are caused Silk Dental Flosses are flat, gentle, smooth and gently inserted between teeth and also improve production capacity as can improve the above disadvantage.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig.1 is a back view of Silk Dental Floss Machine according to the present invention

Fig.2 is a front view of Silk Dental Floss Machine according to the present invention

5 DETAILED DESCRIPTION OF THE INVENTION

A preferred embodiment of the present invention will be described hereunder with reference to accompanying drawing of Fig.1 and Fig.2 which show Machine Case (1) which have Machine Frame (2) inside. The said Machine Frame (2) is mounted with Motor (3) which assembled with Pulley System (4) as power transmission to the said Pulley System to drive the
10 Power Distribution Unit (5). The Power Distribution unit (5) which drive the Extruder Core (6) and increase rotating speed for Raw Silk Filament Spindle Core (7). The Control Panel (8) is located on right side of Machine Frame (2). Hot Pipes (9 and 10) for beeswax warmer are made from stainless steel pipe contained hot coil (11) inside and Thermostat (12) with Relay Type On-Off Button as temperature control for soften beeswax before passed through Surplus Beeswax
15 Removal Core (13) and Silk Filament Extruding Core (14). Then, silk filament passed through 2 Main Organized Cores (15, 16) which have Control Track (17, 18) to avoid silk filament tangles while Silk Dental Floss Machine is working by install the silk filament on the Control Track before put in the Case and heated by both point. Between the said 2 Main Organized Cores (15, 16) having 8 Subordinate Organized Cores (19, 20, 21, 22, 23, 24, 25 and 26) for organize the
20 silk filament and ballast the Extruding Roller (27) for extrude the silk filament to be flat as required. Extruder Core (28) which have Speed Control Core (29) and Free Core (30) which flexible to control the extruding speed. Further, the silk filament will sent to 2 Silk Cores (31) which use as second stage beeswax surplus removal and clean the silk filament before sent to Silk Dental Floss Bobbins Core (32) which mounted with Silk Bobbin Cores (33, 34, 35, 36, 37)
25 to keep Silk Dental Floss at 5 bobbins per time as length of the said cores.

The changes and modifications in the described embodiments by specialist in this art can be carried out without departing from the scope and the spirit of the invention that is intended to be limited only by the appended claims.

30 PREFERRED EMBODIMENT

The present invention has been described with some preferred embodiments as described in the detailed description of the invention.

WHAT IS CLAIMED IS :

1. Silk Dental Floss Machine which comprising Machine Case (1) which inside mounted with the following ;

- 5 - Machine Frame (2) which mounted with Motor (3)
- Motor (3) which assembled with Pulley System (4) as power transmission to the said Pulley System is drive the Power Distribution Unit (5).
- Power Distribution Unit (5) which drive the Extruder Core (6) and increase rotating speed for Raw Silk Filament Spindle Core (7).
- 10 - The Control Panel (8) is located on right side of Machine Frame (2).
- Hot Pipes (9 and 10) for beeswax warmer are made from stainless steel pipe contained hot coil (11) inside and Thermostat (12) with Relay Type On-Off Button (13) as temperature control for soften beeswax before passed through Surplus Beeswax Removal Core.
- 2 Main Organized Cores (14, 15,) which have Control Track to avoid silk
15 filament tangles while Silk Dental Floss Machine is working by install the silk filament on the Control Track before put in Machine Case and heated by both point and between the said 2 Main Organized Cores having Subordinate Organized Cores
- 5 Subordinate Organized Cores (16, 17, 18, 19 and 20) for organize the silk filament and ballast the Extruding Roller Core (21) for extrude the silk filament to be flat as
20 required.
- Extruder Roller which have Speed Control Roller (21) and Free Roller (22) which flexible to control the extruding speed.
- Silk Filament Cores (23) which use as second stage beeswax surplus removal and clean the silk filament before sent to Silk Dental Floss Bobbins Core (24) which mounted with
25 Silk Bobbin Cores (25, 26, 27 and 28) to keep Silk Dental Floss at 5 bobbins as length of the said cores per time.

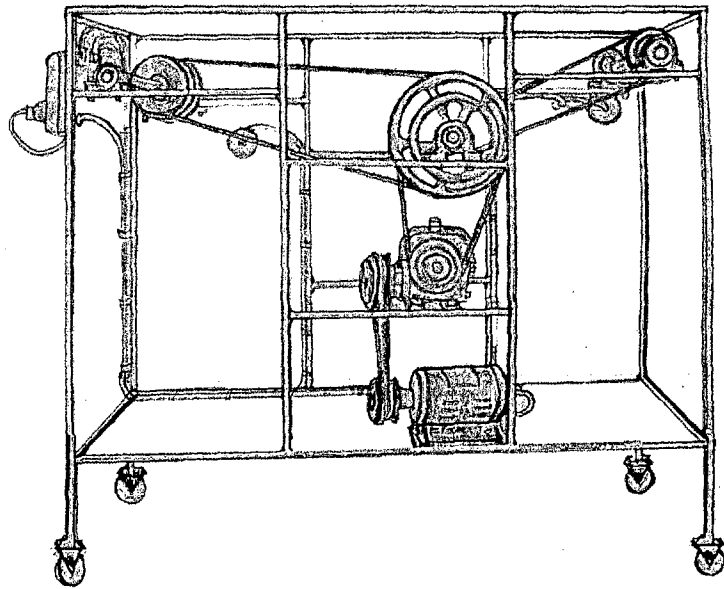


Fig. 1

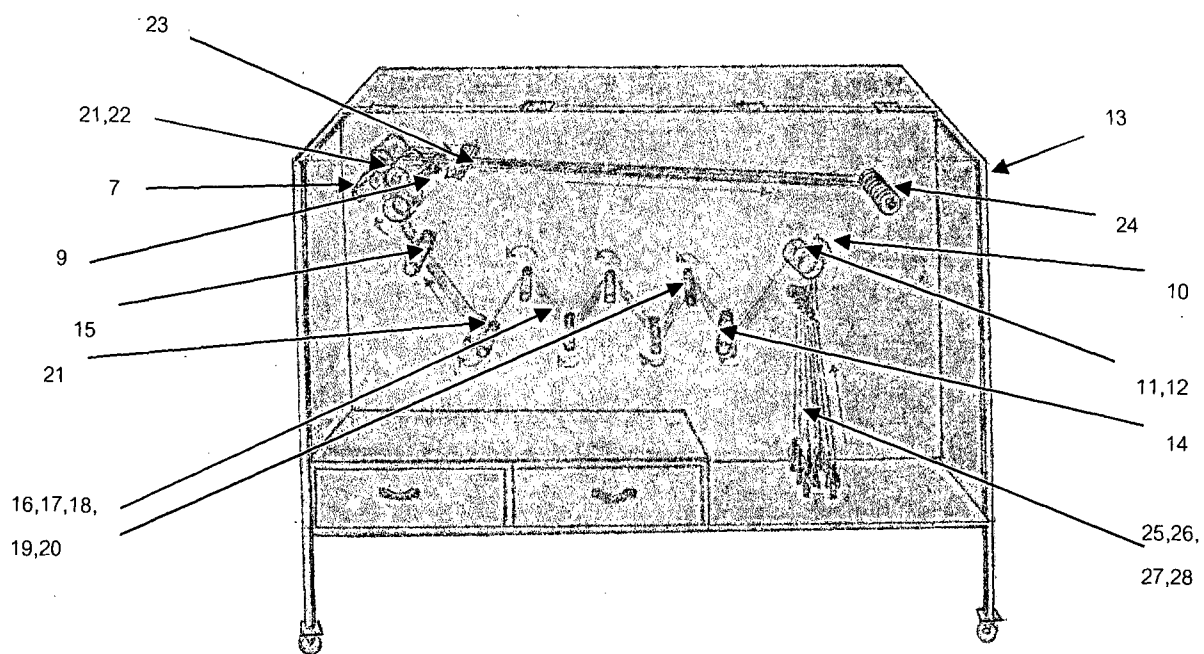


Fig. 2

INTERNATIONAL SEARCH REPORT

International application No PCT/TH2012/000047
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A. CLASSIFICATION OF SUBJECT MATTER INV. A61C15/04 ADD.		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) A61C		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EPO-Internal, WPI Data		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
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<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
* Special categories of cited documents :		
"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family	
Date of the actual completion of the international search	Date of mailing of the international search report	
13 March 2013	20/03/2013	
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Chabus, Hervé	

INTERNATIONAL SEARCH REPORT

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