

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5667815

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	AMENDED AND RESTATED SECURITY AGREEMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	CURTIS INSTRUMENTS, INC.	08/12/2019
RECEIVING PARTY DATA		
Name:	TD BANK, N.A.	
Street Address:	125 PARK AVENUE	
City:	NEW YORK	
State/Country:	NEW YORK	
Postal Code:	10017	
PROPERTY NUMBERS Total: 60		
Property Type	Number	
Patent Number:	9046559	
Patent Number:	8751084	
Patent Number:	8602140	
Patent Number:	8535152	
Patent Number:	7898203	
Patent Number:	6622069	
Patent Number:	6611116	
Patent Number:	6456043	
Patent Number:	6439067	
Patent Number:	6380716	
Patent Number:	6362601	
Patent Number:	6208245	
Patent Number:	6202039	
Patent Number:	6181106	
Patent Number:	D387333	
Patent Number:	5451881	
Patent Number:	5374881	
Patent Number:	5261025	
Patent Number:	5247253	
Patent Number:	5202682	

PATENT

Property Type	Number
Patent Number:	4852104
Patent Number:	4740754
Patent Number:	4728923
Patent Number:	4724332
Patent Number:	4712195
Patent Number:	D288791
Patent Number:	4626750
Patent Number:	4560937
Patent Number:	4514694
Patent Number:	4460870
Patent Number:	4388618
Patent Number:	4288734
Patent Number:	4193026
Patent Number:	4192009
Patent Number:	4186339
Patent Number:	4139896
Patent Number:	4017724
Patent Number:	4012681
Patent Number:	4006415
Patent Number:	4001688
Patent Number:	3992668
Patent Number:	3992667
Patent Number:	3193763
Patent Number:	3255413
Patent Number:	3293731
Patent Number:	3343083
Patent Number:	3462684
Patent Number:	5032999
Patent Number:	5148107
Patent Number:	3628143
Patent Number:	3657647
Patent Number:	3665308
Patent Number:	3704431
Patent Number:	3704432
Patent Number:	3742388
Patent Number:	3777266
Patent Number:	3778702
Patent Number:	3863154

Property Type	Number
Patent Number:	9698453
Application Number:	15409737

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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Address Line 4: NEW YORK, NEW YORK 10271

ATTORNEY DOCKET NUMBER:	1117825
NAME OF SUBMITTER:	SHARON ELWIN
SIGNATURE:	/Sharon Elwin/
DATE SIGNED:	08/14/2019

Total Attachments: 7

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GRANT OF SECURITY INTEREST (PATENTS)

The undersigned, **CURTIS INSTRUMENTS, INC.**, a New York corporation (the “**Grantor**”), and **TD BANK, N.A.**, as Administrative Agent, (the “**Administrative Agent**”) are parties to an Amended and Restated Security Agreement, dated as of August 12, 2019 (as amended, supplemented or otherwise modified from time to time, the “**Security Agreement**”). All capitalized terms used but not otherwise defined herein have the meanings given to them in the Security Agreement.

Pursuant to the Security Agreement, as security for the payment or performance, as applicable, in full of the Obligations, the Grantor collaterally assigned, mortgaged, pledged and hypothecated to the Administrative Agent, and granted to the Administrative Agent, a security interest in, all of the right, title and interest of the Grantor in, to and under the Collateral, including, without limitation, certain of its intellectual property.

For good and valuable consideration, the receipt of which is hereby acknowledged, and for the purpose of recording the grant of the security interest as aforesaid, the Grantor, as security for the payment or performance, as applicable, in full of the Obligations, hereby collaterally assigns, mortgages, pledges and hypothecates to the Administrative Agent, and grants to the Administrative Agent, a security interest in, all of the right, title and interest of the Grantor in, to and under the following property of the Grantor, now owned or hereafter acquired by the Grantor (collectively, the “**Patent Collateral**”):

(a) all patents and registrations thereof, including the patents listed on Schedule 1 attached hereto (collectively, the “**Patents**”); and

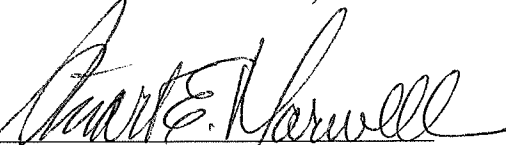
(b) all proceeds thereof, including, without limitation, from any and all causes of action which may exist by reason of infringement thereof.

The Grantor does hereby further acknowledge and affirm that the rights and remedies of the Administrative Agent with respect to the security interest in the Patent Collateral made and granted hereby are set forth in the Security Agreement, the terms and provisions of which are hereby incorporated herein by reference as if fully set forth herein.

The Administrative Agent’s address is: 125 Park Avenue, New York, New York 10017.

IN WITNESS WHEREOF, the Grantor has caused this Grant of Security Interest (Patents) to be duly executed by its duly authorized officer as of August 12, 2019.

CURTIS INSTRUMENTS, INC.

By: 
Name: Stuart E. Marwell
Title: President

Schedule 1
to
Grant of Security Interest (Patents)
Dated as of August 12, 2019

<u>Title</u>	<u>Patent Number or Application Number</u>	<u>Patent or Application Issue Date</u>
Isolation Monitor	9,046,559	06/02/15
Vehicle component recognition and adjustment for energy efficiency	8,751,084	06/10/14
Motor Controller and integrated safety function to eliminate requirement for external contactor	8,602,140	12/10/13
Integrated game function in a personal mobility vehicle, such as a wheelchair	8,535,152	09/17/13
Systems and methods for dynamically compensating motor resistance in electric motors	7,898,203	03/01/11
Automatic motor adjustment for differentially steered dual electric motor system	6,622,069	09/16/03
Anti-spin control for a separately excited motor drive system	6,611,116	08/26/03
Method of diagnosing the state of health of a battery	6,456,043	09/24/02
Shaft sensor assembly for angular velocity, torque, and power	6,439,067	08/27/02
Condition monitoring of opportunity charge batteries	6,380,716	04/30/02
Method of battery charge restoration based on estimated battery plate deterioration and/or based on battery state of health	6,362,601	03/26/02

<u>Title</u>	<u>Patent Number or Application Number</u>	<u>Patent or Application Issue Date</u>
Engine Oil change indicator system	6,208,245	03/27/01
Compact, low-cost semiconductor device for receiving arbitrary input parameters and driving selected display devices, and methods	6,202,039	03/13/01
Sequential high-rate charging of battery cells	6,181,106	01/30/01
Heatsink enclosure for an electrical controller	D387,333	12/09/97
Method and means for adjusting battery monitor based on rate of current drawn from the battery	5,451,881	09/19/95
Electric motor controller	5,374,881	12/20/94
Method and apparatus fro DC motor speed control	5,261,025	11/09/93
Eddy current proximity sensing means and method useful for setermning throttle position	5,247,253	09/21/93
Data encodement and reading method and apparatus	5,202,682	04/13/93
Solid-state reader device for cumulative operations measurement system	4,852,104	07/25/89
Bidirectional battery state-of-charge monitor	4,740,754	04/26/88
Steerable wheel direction indicator	4,728,923	03/01/88
Synchronous load lock-out control system for battery powered equipment	4,724,332	02/09/88
Solid-state cumulative operations measurement system	4,712,195	12/28/87

<u>Title</u>	<u>Patent Number or Application Number</u>	<u>Patent or Application Issue Date</u>
Battery state-of-charge meter	D288,791	03/17/87
Solid state d.c. motor control	4,626,750	12/02/86
Battery state of charge metering methods and apparatus	4,560,937	12/24/85
Quiescent battery testing method and apparatus	4,514,694	04/30/85
Quiescent voltage sampling battery state of charge meter	4,460,870	07/17/84
Battery state of charge indicator operating on bidirectional integrations of terminal voltage	4,388,618	06/14/83
Bidirectional integrator	4,288,734	09/08/81
Method and apparatus for measuring the state of charge of a battery by monitoring reductions in voltage	4,193,026	03/11/80
Coulometric device for performing time integration	4,192,009	03/04/80
Method and apparatus for measuring current, especially useful in multi-ampere systems	4,186,339	01/29/80
Method and apparatus for producing nonlinear functions	4,139,896	02/13/79
Apparatus for measuring battery depletion by monitoring reductions in voltage	4,017,724	04/12/77
Battery control system for battery operated vehicles	4,012,681	03/15/77
Fast reset integrator	4,006,415	02/01/77
Coulometer with end of integration	4,001,688	01/04/77

<u>Title</u>	<u>Patent Number or Application Number</u>	<u>Patent or Application Issue Date</u>
color change indicator		
Electro-thermal readout of coulometers	3,992,668	11/16/76
Electro-thermal readout of coulometer	3,992,667	11/16/76
Operating Time indicator	RE27556	Reissued 1/23/1973; Original issue 7/17/1962
Electrolytic coulometer Current Integrating Device	3,193,763	07/05/65
Electro-Chemical Coulometer including Differential Capacitor Measuring Elements	3,255,413	06/07/66
Method of making a Coulometer Device	3,293,731	12/27/66
Nonself-Destructive reversible Electrochemical Coulometer	3,343,083	09/19/67
Apparatus for detecting the position of an electrochemical coulometer gap	3,462,684	08/19/69
Elapsed time compiling system	3,706,036	12/12/72
Motion sensor useful for power assisted steering systems	5,032,999	07/16/91
Inductive Proximity switch means and methods	5,148,107	09/19/92
Means and methos of measuring	2,005,123	08/13/99
Reusable mercury coulometer	3,628,143	12/14/71
Variable bore mercury microcoulometer	3,657,647	11/16/76

<u>Title</u>	<u>Patent Number or Application Number</u>	<u>Patent or Application Issue Date</u>
Package for an electricochemical elapsed time meter	3,665,308	05/23/72
Method for operating a coulometer device	3,686,566	08/22/72
Coulometer controlled variable frequency generator	3,704,431	11/28/72
Capacitive coulometer improvements	3,704,432	11/28/72
Coulomeyer controller method and apparatus for generating an electrical function	3,742,388	06/26/73
Programmable integrator	3,777,266	12/04/73
Operating time remaining computer	3,778,702	12/11/73
Switched integrator	3,863,154	01/28/75
Personal Mobility Vehicle (Integrated Reminder)	2,044,917	4/8/09
Adjustable Length Electrolyte Probe	9,698,453	5/26/2016
Power wheelchair hand control with dual configurable keypads	15/409,737	1/19/17